

First preliminary report on the joint Iranian-German excavations at Gohar Tappe, Māzandarān, Iran

By Christian Konrad Piller and Ali Mahfroozi¹

With contributions by Natascha Bagherpour, Thomas Neumann and Birgül Ögüt

Schlagwörter: Kaspisches Meer, Nordost Iran, Gohar Tappe, Eastern Grey Ware, Spätbronze-/frühe Eisenzeit, Glasperlen, Figurine, Datenbank
Keywords: Caspian Sea, north-eastern Iran, Gohar Tepe, Eastern Grey Ware, Late Bronze Age/Early Iron Age, glass beads, figurine, database

Gohar Tappe is situated in the Iranian province of Māzandarān (**Fig. 1**) near the south-eastern shore of the Caspian Sea (36°40'43"N; 53°24'01"E). The site was discovered during a survey carried out between 2000 and 2002 by the Cultural Heritage Organization of Māzandarān (MCHO) under the supervision of A. Mahfroozi. Its main mound stretches about 370 m from north to south and 280 m from east to west and covers an area of approximately 10 hectares. This central part is encircled by a number of artificial elevations containing prehistoric structures. Including these sites, the total area of ancient occupation at Gohar Tappe extends to about 30 hectares, thus representing the largest archaeological complex in the coastal plain of Māzandarān (**Fig. 2**).

Today, the main road between Sāri and Gorgān touches the southern limits of Gohar Tappe. The northern slopes of the Alborz Mountains lie just a few hundred metres to the south, while the shore of the Caspian Sea is less than 10 kilometres to the north. Extensive agriculture now characterizes the fertile coastal plain, but in antiquity, large parts of this area consisted of inhospitable marshland.² Gohar Tappe lies exactly where a narrow strip of land served as the only east-west passage north of the Alborz Mountains.³ A constant water supply was guaranteed by the abundant rainfalls and by the numerous streams flowing from the mountains to the Caspian Sea, especially the nearby Neka River.

Besides the impressive size and convenient location of Gohar Tappe, the survey finds from the main mound – including anthropomorphic and zoomorphic figurines – attracted the attention of the Iranian archaeologists. Some painted sherds indicated that the site was first settled in Chalcolithic

times (**Fig. 3**).⁴ Most of the pottery collected was Early and Middle Bronze Age grey pottery, the so called Eastern Grey Ware. During this time, Gohar Tappe reached its largest extent and surely was one of the major centres of the Bronze Age in north-eastern Iran.⁵

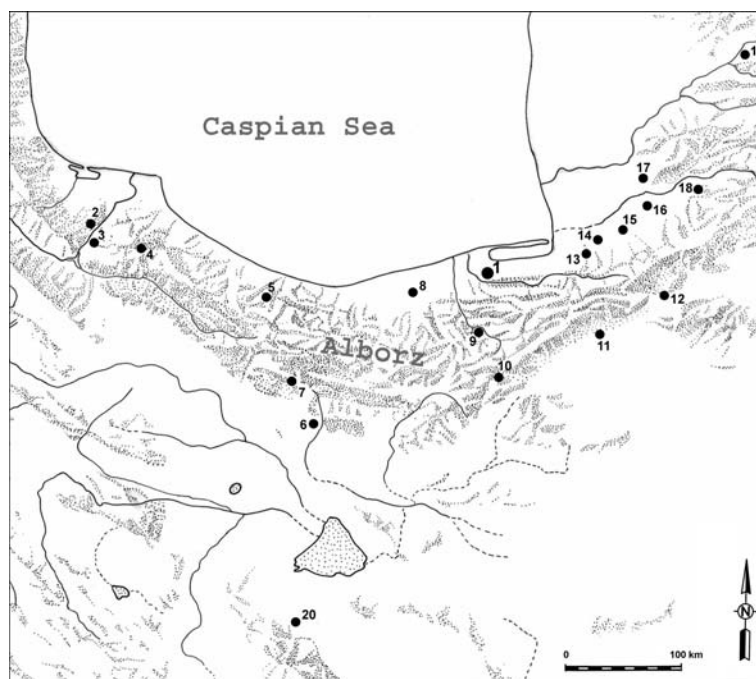


Fig. 1
Bronze and Iron Age sites in Northern Iran and adjacent regions. 1 Gohar Tappe; 2 Jamšīdābād; 3 Tappe Marlik; 4 Qal'e Kutī; 5 Tappe Kelār; 6 Tappe Pardīs; 7 Qeytariyeh; 8 Qal'e Kaš; 9 Qal'e Pey Tappe; 10 Xarand; 11 Tappe Hesār; 12 Sāhrūd; 13 Tappe Narges; 14 Šāh Tappe; 15 Turang Tappe; 16 Yarim Tappe; 17 Aq Tappe; 18 Tappe Bāzgir; 19 Sumbar; 20 Tappe Sialk. Drawing by C. Wolff, after: Naher Osten/Iran M 1 : 2 Mio., RV Reise- und Verkehrsverlag, Stuttgart 1994 (Adaption by C. Piller)

¹ The authors would like to thank M. Roaf for revising the article.

² Impressive descriptions of the geographical conditions in this area were recorded by European travellers who entered the coastal plains of Gilān and Māzandarān between the 17th and 20th centuries: Olearius 1959, 466; Morier 1985, 525–526; Vām-béry 1867, 279–280; 303–304; Luschey 1983, 388.

³ See also Soltysiak/Mahfroozi 2008, 71–73.

⁴ Voigt/Dyson 1992, 172–173. Useful information for dating comes from Turang Tappe, where pottery like this was found in Stratum IIB and therefore can be placed within the first half of the fourth millennium BC. In the same stratum, burnished grey ware makes its first appearance at the site.

⁵ By comparison the “six large centres” mentioned by Mousavi 2008, 115, in the Gorgān plain each cover an area of only 3 to 5 hectares.

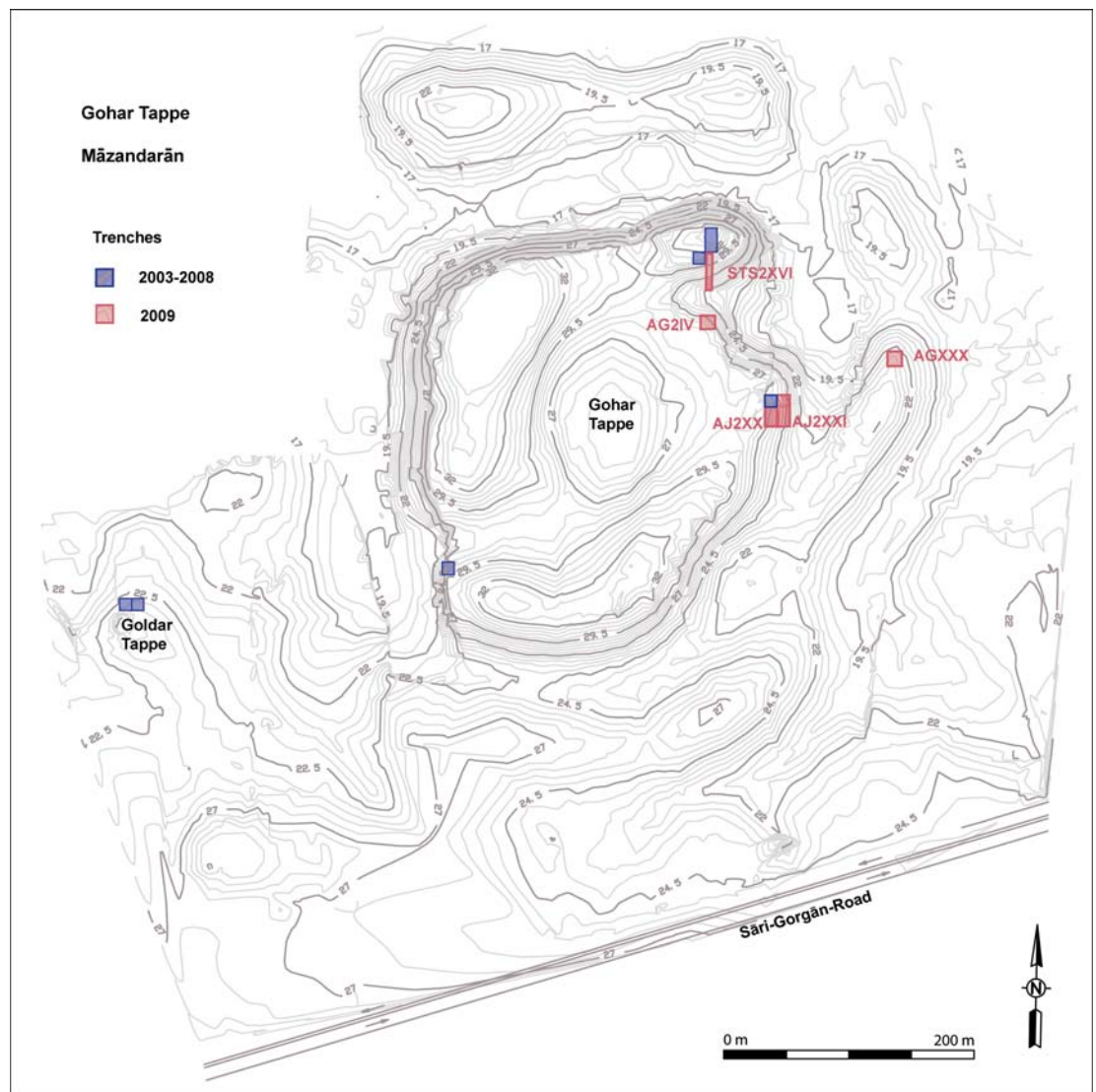


Fig. 2

Gohar Tappe. Topographic map of the 2003 to 2008 campaigns are marked in purple, trenches of the 2009 campaign in red. Base plan by the Iranian Cultural Heritage Organisation, Mazandaran branch (Adaption by M. Gruber, B. Ögüt, C. Piller)

Furthermore, there was also considerable evidence for Late Bronze and Iron Age activities at the site.

As large parts of the main mound and its surroundings were endangered by agricultural activity and had even been partly bulldozed away in recent years, excavations of the MCHO under the direction of A. Mahfroozi were started without further delay in 2003, concentrating predominantly on the eastern slope of the mound. Test trenches have also been excavated in the west and the north of the mound.⁶ Additionally, a sounding at Yaghot Tappe



Fig. 3

Gohar Tappe. Painted Chalcolithic pottery from Test Trench AH2XXII (Find No. 18/22). Photo by B. Ögüt, ASEC Project

⁶ A brief summary of the recent works at Gohar Tappe is given by Azamouh/Helwing 2005, 230–231.

about 800 m north-east of Gohar and a rescue operation at Goldar Tappe on the western limits of the site were undertaken. These excavations revealed a vast number of graves as well as settlement structures from the Bronze and Iron Ages. The sequence revealed in a sounding on the western edge of the main mound is of particular interest. Here, due to the aforementioned bulldozing, a steep slope provided easy access to the stratigraphy of the mound. A massive stone wall foundation on which 17 courses of mud-brick were still preserved confirms the importance of the site. According to a series of C14-dates, the main period of settlement activity took place between 3400 and 1900 BC.⁷

In 2008, a new scientific research project sponsored by the Ludwig-Maximilians-University (LMU) Excellence Initiative⁸ was begun at the Institute for Near Eastern Archaeology, LMU in Munich. The main goal of this project is the archaeological investigation of northern and north-eastern Iran in close collaboration with Iranian colleagues. After a short contact phase, the first joint Iranian-German campaign of the MCHO and the LMU directed by A. Mahfroozi and C. Piller at Gohar Tappe could be conducted during March and April 2009. The aim of this article is to describe the results of the 2009 campaign⁹ while at the same time providing some information on the activities carried out during the previous years.¹⁰ This marks the first step to a larger international project called “Archaeology South-East of the Caspian Sea” (ASEC).¹¹

(A.M./C.P.)

The Archaeology of North-eastern Iran – an overview¹²

The area south-east of the Caspian Sea attracted the attention of international scholars dealing with the history, prehistory and archaeology of Iran earlier than most of the other parts of the country. As early as 1841, a number of mysterious objects of great value were brought to the governor of Astarabad, the modern Gorgān, which at that time was the capital of the greater province of Māzandarān. This so-called “Treasure of Astarabad” consisted of decorated golden vessels, bronze weapons, anthropomorphic figurines and alabaster vessels. It is said that they had been discovered accidentally by two workmen digging a trench at Turang Tappe, one of the numerous ancient sites in the vicinity of Gorgān.¹³ The finds were sent to the court of the shah in Tehrān, where they were stored in the imperial treasury. There, the Russian ambassador Clemens Augustus de Bode had the chance to examine the collection and published a short report with descriptions and sketches.¹⁴ De Bode also went to Astarabad and Turang Tappe to investigate the background of the treasure and found out that the finds were probably part of a rich burial. More than 160 years after the treasure’s discovery de Bode’s short article is still the main source of information about the objects in the “Treasure of Astarabad”,¹⁵ because soon after their arrival in Tehrān, they disappeared somewhere in the treasury, never to be seen again. The “Treasure” is now thought to have belonged to the Late Bronze Age contemporaneous to Tappe Hesār IIIC.¹⁶

At the very end of the 19th century, Jacques de Morgan visited the Gorgān plain, discovered several archaeological sites and conducted a sounding at Tappe Karguś.¹⁷ Thereafter, the area south-east of the Caspian Sea was not touched by archaeologists for many decades. This situation changed rapidly with the termination of the French monopoly on archaeological excavation by Reza Shah in 1930. Within the following two years, as many as three archaeological expeditions set off for north-eastern Iran.

⁷ These investigations were carried out by the Oxford University. Exact references to the dates will be given together with some new samples in one of the forthcoming reports on Gohar Tappe. It may be significant, that this is exactly the period during which the climate in the area south-east of the Caspian Sea was more humid than today: Ehlers 1971, 9.

⁸ http://www.en.uni-muenchen.de/research/projects/lmu_excellent/excellenceinitiative/.

⁹ The trenches were supervised by S. Ghassemi, M. Hosseinzadeh, M. Miri Ahoodashti, B. Ögüt, M. Safari and M. Sharifi. The following persons participated in the campaign: N. Bagherpour, F. Damavandi, B. Fakour, M. Jahed, H. Nemati, Th. Neumann, Y. Panahi and H. Ramzampour. The step-trench STS2XVI is not completed yet and will be discussed in the next report.

¹⁰ A short report on former activities can be found at Mahfroozi 2007.

¹¹ A first assessment of the situation made it clear that research should not only be restricted to Gohar Tappe. Other interesting sites like Qal’e Kaš near Amol in the sedimentary plain of Māzandarān and Qal’e Pey Tappe in the high mountain valley of Mohammadābād, south of Sāri, should be included. Furthermore, it is planned that the neighbouring provinces of Iran and adjacent areas of Turkmenistan shall also be investigated as part of the ASEC project.

¹² A comprehensive summary on this topic has recently been published by Mousavi 2008, 106–112. Nevertheless, the following section is included here to provide the necessary archaeological background for the excavations at Gohar Tappe and to illustrate the current state of research in the region.

¹³ De Bode 1844, 251.

¹⁴ De Bode 1844.

¹⁵ For example Rostovtzeff 1920; Löw 1998, 514–516.

¹⁶ Löw 1998, 514. Recently, comparable artifacts were discovered at Tappe Bāzgir near Minudašt. See Nokandeh et al. 2006 for further details.

¹⁷ De Morgan 1896.

Influenced by the alleged origin of the Astarabad treasure, F. Wulsin chose Turang Tappe to carry out excavations on behalf of the University Museum of Philadelphia in the summer of 1931. According to Wulsin, these investigations “revealed a Bronze Age culture of considerable interest and importance”.¹⁸ Unfortunately, two preliminary reports of only eleven and five pages of text and a number of plates with photographs are the only easily accessible information on his excavations.¹⁹ Two years later, a division of the Sino-Swedish Expedition under the supervision of T. J. Arne went to the Gorgān plain to survey the numerous ancient remains of the area and during the summer of 1933 carried out an excavation at Šāh Tappe, just a few kilometres west of Turang Tappe.²⁰ The results were published comprehensively in 1945, but, for various reasons, cannot be easily used by other scholars.²¹

The most productive and influential excavation was that conducted by Erich F. Schmidt in two seasons from 1931 to 1933 at Tappe Hesār near Damghān on the opposite flank of the Alborz Mountains. Swift publication of an extensive preliminary report in 1932 and a well articulated monograph in 1937 delivered a chronological and typological sequence which has served as the foundation for subsequent investigations in the area. Schmidt divided the cultural remains at Hesār into three main strata which were further subdivided during the course of the second season.²² Despite some later modifications,²³ Schmidt’s publication of his excavations at Tappe Hesār is still of invaluable importance for our understanding of the Chalcolithic and Bronze Age sequence in north-eastern Iran. After these few dynamic years, there was virtually no further research in the whole area for a quarter of a century.²⁴

Archaeologists did not return to the region until the 1960s, when a French mission under the

direction of J. Deshayes worked again at Turang Tappe. Excavations were carried out until the dawn of the Islamic revolution in 1977. The results were published in numerous preliminary reports,²⁵ but, until today, a final publication is solely available for the Sassanian and Islamic remains. The massive Bronze and Iron Age levels at the site still await full publication. Nearly at the same time, British excavations took place in Yarim Tappe near Gonbad-e Qabus. Yarim Tappe showed a considerable number of similarities with the aforementioned sites, but again, there is no final publication, just two rather short articles.²⁶

South of the Alborz range, the Japanese excavations at the Neolithic double-mound of Sang-e Čaqmāq should also be mentioned.²⁷ The renewed investigations by a combined American and Italian team at Tappe Hesār in 1976 provided valuable new information about the Bronze Age of northern Iran.²⁸ Additionally, some small surveys were conducted in the Gorgān plain and in northern Khorasan.²⁹ During the eight year’s war between Iran and Iraq, archaeological research in the region came to a standstill.³⁰

Increasingly, however, in the last ten years, the archaeological authorities in Iran have started new research projects, including surveys and excavations in the provinces of Semnān,³¹ Māzandarān and Golestān.³²

(A.M./C.P.)

Excavations at Gohar Tappe: The 2009 campaign

Investigations were carried out in five different trenches, beginning in the neighbouring Trenches AJ2XX

¹⁸ Wulsin 1932, 12.

¹⁹ Wulsin 1932; Wulsin 1938. Unfortunately, a M.A. thesis by G. Salzmann about Turang Tappe which was based on the diaries of Wulsin has never been published.

²⁰ Arne 1945, 31 stresses the fact that Šāh Tappe was chosen “because it promised ancient finds similar to those yielded by Turang Tappe”.

²¹ The reasons for this are explained by Orsaria 1995, 484. The relative chronology was based on the typology and the absolute depth of the finds below the surface; Arne “never refers to stratigraphic units in the modern meaning of the word.” Furthermore, frequently levels were created “without a clear logic-functional connection.” See also Mousavi 2008, 110.

²² Schmidt 1937, 19.

²³ Dyson/Howard 1989.

²⁴ C.S. Coons excavations in the Palaeolithic caves of Hotu and Kamarband near the town of Behšahr in 1949 were the first archaeological investigations that took place on the territory of the modern province of Māzandarān. Unfortunately, the Neolithic pottery finds from the caves were not published in detail in the report of the excavator. See Coon 1951, 77–78 Pl. XIII.

²⁵ For example Deshayes 1963; Deshayes 1965; Deshayes 1967; Deshayes 1968a; Deshayes 1968b; Deshayes 1972.

²⁶ Crawford 1962; Stronach 1972.

²⁷ Masuda 1974; Masuda 1976. For a summary see Kaniuth 2009.

²⁸ Dyson/Howard 1988.

²⁹ See Fahimi 2006 for the publication of a Japanese survey at Tappe Anjirab in 1974; Kohl/Heskel 1980 for their investigations in the Darreh Gaz plain in 1978; Venco Ricciardi 1980 for the Italian investigations between 1975 and 1979 in northern Khorasan.

³⁰ A rare exception is the short rescue excavation of a small cemetery in Šāhrūd carried out by H. Rezvani in 1990. For information, see Mousavi 2005, 94; 99 Fig. 4; Mousavi 2008, 111–112.

³¹ Rezvani 1999.

³² See Azarnoush/Helwing 2005, 199, for a short summary of the Golestān Park survey conducted by H. Omrami Revakandi. The Cultural Heritage Organisation of Golestān province has recently conducted another survey in the Gorgān plain. Personal communication from G. Abbasi. Rescue excavations have also been conducted at Tappe Narges near the Gorgān airport: Abbasi 2007.

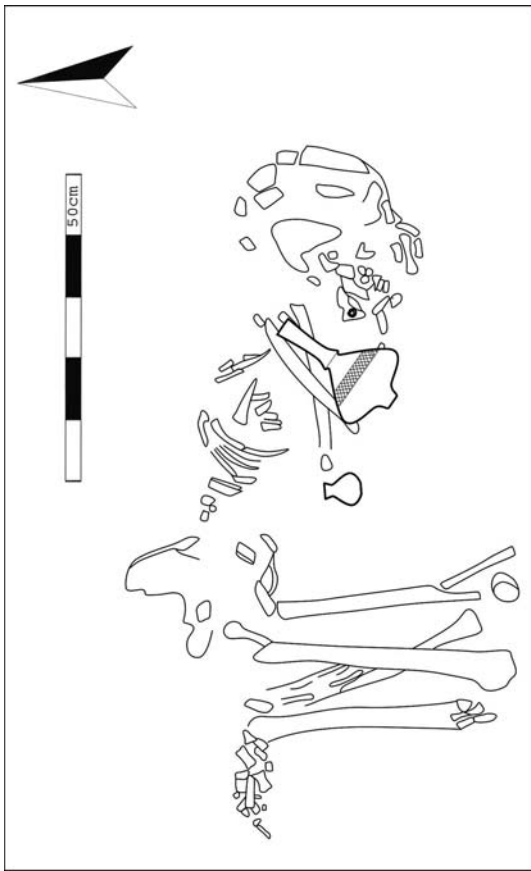


Fig. 4
Gohar Tappe. Burial AGXXX-22. Middle Bronze Age (Early Hesār III).
Drawing by B. Ögüt and F. Damavandi, ASEC Project

and AJ2XXI on the eastern slope of the main mound. When the other trenches had been laid out, the German team began to work in Trench AG2IV, while Iranian teams continued excavating on the eastern slope. Furthermore, other investigations were undertaken in trench AGXXX on one of the elevations east of the main mound and in Trench STS2XVI in the north-eastern corner of the main mound (Fig. 2).

Excavations in Trench AGXXX

This new trench was started in order to determine, whether the abovementioned elevations encircling the main mound represent separate and independent archaeological features or if they were part of a surrounding wall structure with some large towers or bastions. Therefore, a sounding of 5 by 5 m was excavated on the highest point of the eastern elevation.

In course of removing the topsoil, some glazed sherds from Islamic times appeared, before

remains of heavily disturbed mud-brick architecture came to light. Most interesting was the only grave in this trench (AGXXX-22).³³ The burial pit was clearly cut into the walls of the architecture, thus delivering a sound base for a terminus ante quem for the mud-brick architecture in this trench. The burial contained a tightly flexed inhumation of an adult person, lying on the left side (Fig. 4).³⁴ The body was orientated east-west with the head to the east. Grave goods include a grey bottle with pattern burnished decoration lying at the right arm (Fig. 5.1), a small grey beaker in front of the stomach (Fig. 5.2), two silver earrings and a fragmented silver headband at the skull. Judging by the

Fig. 5
Gohar Tappe. Ceramic assemblage of Burial AGXXX-22. 1 Bottle (Find No. 74); 2 Small beaker (Find No. 75). Middle Bronze Age. Photos by B. Ögüt, ASEC Project



³³ AGXXX is the trench number according to the grid system which was installed at the beginning of the investigations in 2003 and -22 is the context number which was given in the course of the excavation. The complete find numbers are of the form: GHM-09-AGXXX-22-1. GHM-09 stands for Gohar Tappe Māzandarān campaign 2009 it is followed by the trench and context number. For the find numbers of this context another numeral beginning with -1 is added to the context number.

³⁴ Anthropological examination of the human remains from this year's campaign were carried out by A. Soltysiak from the Department of Bioarchaeology, Institute of Archaeology of Warsaw University and will be published separately in the near future. For the results of former campaigns, see Soltysiak/Mahfrozzi 2008.



Fig. 6
Gohar Tappe. Burial
AJ2XX-2 in course of
excavation. Ceramic
finds behind the skele-
ton from left to right:
two jars with vertical
handles (Find Nos. 21
and 22), spouted ves-
sel (Find No. 20); bowl
with open spout (Find
No. 19) with one-hand-
led jug inside (Find No.
24); carinated jar (Find
No. 7) with small bowl
(Find No. 23) inside.
Late Bronze Age. Photo
by C. Piller, ASEC
Project

grave goods, this burial is contemporary with the Early Hesār III horizon and can be assigned to the Early Bronze Age. A detailed explanation for this dating is given below.

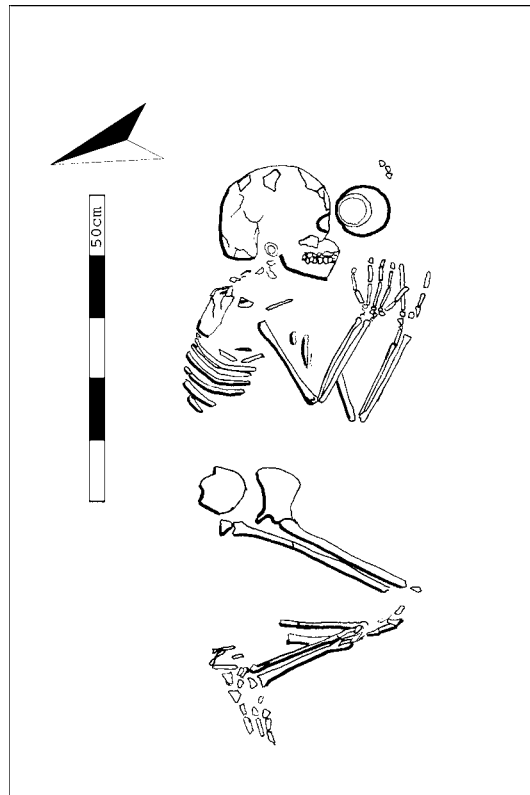


Fig. 7
Gohar Tappe. Burial
AJ2XX-8. Late Bronze
Age. Drawing by
Th. Neumann and F. Da-
mavandi, ASEC Project

Excavations on the eastern slope of the main mound: Trenches AJ2XX and AJ2XXI

These trenches had already been opened in the 2008 season. This year's excavations confirmed the results from the neighbouring trenches that had been investigated in the earlier campaigns: near the top of the slope there were many inhumation and pithos burials, sometimes overlapping and destroying the earlier ones. This burial horizon was mixed with some architectural features such as single mud-bricks, floors, hearths, fireplaces, pits with habitation debris, and rows of post holes, the latter being later than the burials. In the neighbouring trench AH2XXII, pottery kilns and other industrial remains had been observed in former campaigns. Here, two deep soundings revealed a stratigraphic sequence which attests extensive occupation during the Early and Middle Bronze Age. By the end of the Bronze Age, this part of the site was exclusively used as a burial ground.

Due to heavy erosion, the topsoil in the upper parts of the trenches is very thin, while the lower parts of the slope sometimes consist of several metres of deposit eroded from higher up the slope. The eroded levels contained numerous artefacts including pottery sherds, stone and bone tools, spindle whorls and small animal figurines, most of which were fragmentary.

The burials belong to at least three different chronological horizons: the oldest group consists of graves containing grey ware of Hesār IIIB type, often together with bronze weapons or personal ornaments such as earrings and diadems of silver or bronze. One example of such a burial from Trench AGXXX has been described above. The second group of graves belongs to the Late Bronze Age and comprises the large majority of the inhumation burials. Apart from some bronze weapons such as daggers, spearheads and arrowheads, these tombs often contain personal ornaments such as beads of various materials, ear-rings and pins used for fastening garments or headdresses. The pottery assemblage is characterised by a number of shapes including spouted vessels, jars with a vertical handle, carinated bottles and so-called incense-burners. Thirdly, there are many pithos-burials intermingled with the inhumation graves. Many of these are more recent than the second group because they often cut into the burial pits of the inhumations. A detailed discussion of these groups of graves and their relationship to those from other excavated sites is given below. By the end of the season, the cemetery horizons in Trenches AJ2XX and AJ2XXI had been cleared, giving us the opportunity to go down to the expected Early and Middle Bronze Age habitation levels in the next campaign.



Fig. 8
Gohar Tappe. Ceramic assemblage of Burial AJ2XX-11. 1–2 Jars with vertical handles (Find Nos. 38 and 39); 3 Bowl with an open spout (Find No. 40); 4 Spouted vessel (Find No. 41); 5 Incense-burner (Find No. 43); 6 Carinated jar (Find No. 42). Late Bronze Age. Photos by B. Ögüt, ASEC Project

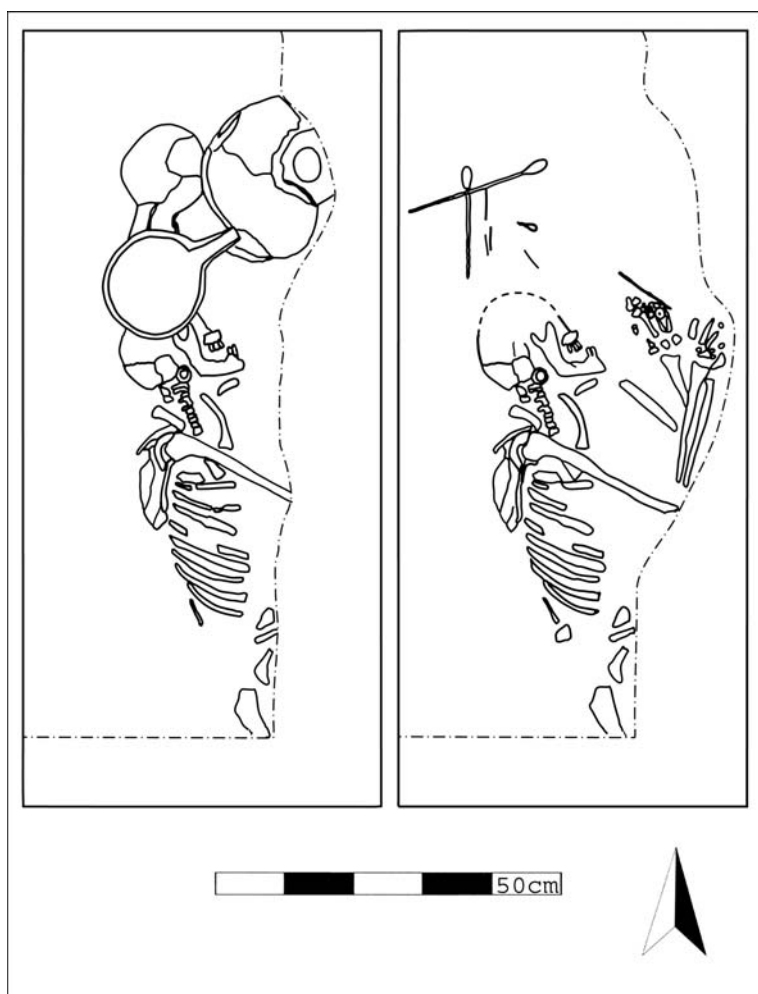


Fig. 9
Gohar Tappe. Burial
AG2IV-96 before (a)
and after (b) removing
the pottery finds. Late
Bronze Age. Drawing by
B. Ögüt, ASEC Project

In Trench AJ2XX, three graves were excavated at the beginning of this year's campaign. The skeletons were found in a flexed position, but there seems to have been no preferred orientation. Grave goods consist mainly of pottery vessels. Only one grave contained metal finds. The dating of these Late Bronze Age burials is discussed below.

The first of these inhumation burials (AJ2XX-2) was that of an adult person in flexed position, lying on the right side (**Fig. 6**). The body is orientated approximately south-north with the head to the south and the face directed towards the east. Seven pottery vessels were placed in a row behind the body from the neck down to the feet. The assemblage consists of two jars with vertical handles, a spouted vessel, a spouted bowl with a small jug placed inside it and a carinated jar containing a miniature spouted bowl inside.

The second inhumation burial (AJXX-8) was that of a young adult in flexed position, lying on the left side. It was orientated roughly east-west

with the head to the east and the face looking south (**Fig. 7**). The only finds from this grave were a small grey pottery bottle in front of the face and a spiral silver ear-ring on the skull. Both objects are quite simple. Therefore, the exact dating of the burial remains uncertain.

The third burial (AJ2XX-11) is that of an adult oriented roughly south-north. The skull and upper part of the body are outside the northern edges of the trench and have not been excavated. The body was buried on its left side in a flexed position with the head to the north. Around and partly above the feet, six pottery vessels were found. As in Burial AJ2XX-2, there are two jars with vertical handles (**Fig. 8,1–2**), a spouted vessel (**Fig. 8,3**), a bowl with an open spout (**Fig. 8,4**) and a carinated jar (**Fig. 8,6**). In addition, a so-called incense-burner with a vertical handle was found (**Fig. 8,5**).

Excavations in Trench AG2IV

The topsoil in this area had already been removed during last year's campaign. Directly below the topsoil, numerous pits and both inhumation and pithos burials were identified. Soon it became clear that all these burials contained the remains of infants. The five inhumation graves were mostly found in an intact condition. Exceptions are Burial AG2IV-101, which was partly disturbed and cut away by a later pithos burial, and Burial AG2IV-6, which was slightly damaged from above by agricultural activity.

There is also considerable evidence for settlement activity in Trench AG2IV, but the remains have been mostly destroyed by the aforementioned pits and burials. The floors were badly preserved, mud-bricks mostly appeared without secure context, and the door socket stones were not found in situ. Furthermore, the traditional local wattle-and-daub architecture leaves sparse traces in the archaeological record. The occupation is characterised by a few post holes and the remains of some hearths or fire places in the shape of a horseshoe have been found in the upper layers.³⁵

In the south-western corner of the trench, a sounding of 2 by 2 m was carried out in the hope of reaching undisturbed Bronze Age occupation levels. As in the rest of Trench AG2IV, some parts of floors, a few mud bricks and a lot of pits were found. At a depth of 2.77 m below the surface, a north-south orientated burial (AG2IV-96) with the head to the north was partly uncovered near the eastern edge of the sounding (**Fig. 9,a**).

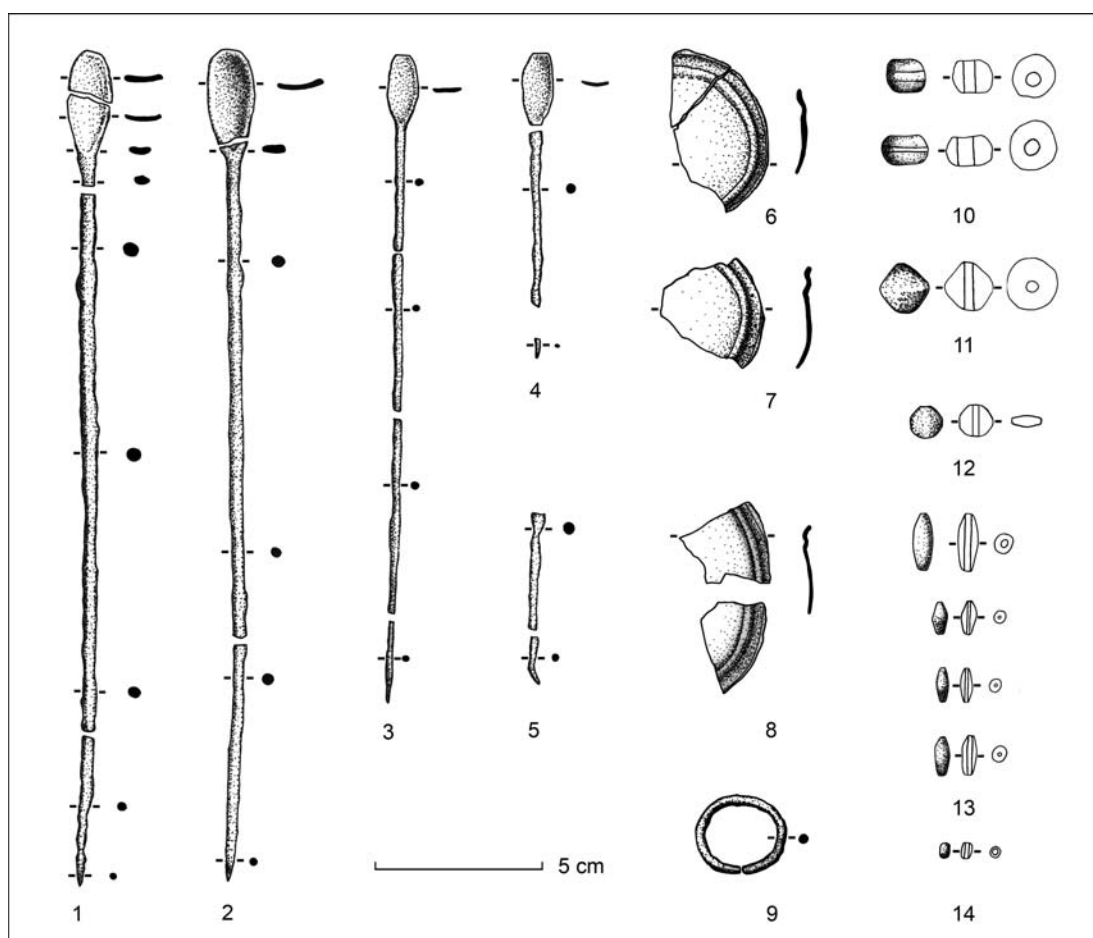
³⁵ Similar fireplaces were in use in Māzandarān until the 1960s. Due to the fire hazard, they were always built outside the houses. See Luschey 1963, 384; 387 Abb. 5.

**Fig. 10**

Gohar Tappe. Ceramic assemblage of Burial AG2IV-96. 1 Bowl with an open spout (Find No. 301); 2 Jar with a vertical handle (Find No. 303); 3 Carinated bottle (Find No. 302). Late Bronze Age. Photos by B. Ögüt, ASEC Project

This burial contained the skeleton of an adult in a flexed position on its left side. Three ceramic vessels were placed above and in front of the head, partly covering the skull of the deceased: these were a bowl with a spout (**Fig. 10,1**), a reddish brown jar with a vertical handle (**Fig. 10,2**) and a grey carinated jar with pattern-burnished decoration (**Fig. 10,3**). A

bronze earring with round section was found in situ on the skull (**Fig. 11,9**). At the hips, a few very badly preserved fragments of circular bronze discs were uncovered (**Fig. 11,6–7**). These objects were made of thin sheet metal with embossed centres and rims pierced by pairs of holes, presumably in order to sew them onto a belt or some other garment.

**Fig. 11**

Gohar Tappe. Personal ornaments from Burial AG2IV-96. 1–5 Bronze pins with spoon-like heads (Find Nos. 304–306; 324a–b); 6–8 Bronze discs (Find Nos. 300a–b; 323); 9 Bronze earring (Find No. 298); 10 Spherical beads of dark glass with white stripe (Find No. 308a); 11 Biconical bead of opaque glass (Find No. 308b); 12 Whitish frit bead (Find No. 297a); 13 Biconical beads of opaque glass (Find No. 297b–e); 14 Bronze bead (Find No. 307). Late Bronze Age. Drawings by B. Ögüt, ASEC Project



Fig. 12

Gohar Tappe. Ceramic finds from burials in Trench AG2IV. 1 Small bottle, Burial AG2IV-20 (Find No. 82); 2 Bowl with an open spout, Burial AG2IV-9 (Find No. 30); 3-4 Jug with a vertical handle and small beaker, Burial AG2IV-20 (Find Nos. 81 and 80). Early Iron Age. Photos by B. Ögüt, ASEC Project

After removing the pottery, two long bronze pins with spoon-like heads came to light (Fig. 11,1-2). They were placed crossed-over above the head (Fig. 9,b). A number of beads (Fig. 11,12-

14), mostly of glass but including one of frit and one of bronze seemed to have been originally associated with the pins, and might have formed some sort of headdress or hair covering. In the course of the excavation, fragments of three smaller pins (two with spoon-like heads) were found in front of the skull (Fig. 11,3-5). Above the right wrist, there was another disc of sheet bronze (Fig. 11,8), while between the fingers of the left hand, two bichrome glass beads and one biconical frit bead were uncovered (Fig. 11,10-11). Nearby, badly preserved remnants of a headless bronze pin were found.

The five inhumation burials of children in this trench had a number of features in common: all of them were in a flexed position, lying on the left side with the head to the south-east. Grave goods consisted of a number of pottery vessels (from one up to five), metal wristbands and a collection of beads or pendants in the area of the neck and the upper body. Often, the ceramic finds are quite simple, sometimes crudely made and are in stark contrast to the elegant and fine ware from the Late Bronze Age burials. Because of this consistent appearance, it is probable that all five burials belong to the same chronological horizon.

The orientation of the skeleton and the positioning of the grave goods in Burial AG2IV-6 correspond to the above-mentioned scheme. A number of ribbed beads of different colours were found in the area of the neck. A bronze bracelet was still in situ on the right wrist. Two pottery vessels, one a slightly burnished light brown jug with a vertical handle and the other a small dark brown beaker made of coarse ware, were placed in front of the skeleton (Fig. 12,3-4).

By far the richest of these burials was AG2IV-7. The finds include five pottery vessels. Two of them were placed near the feet, the others in front of the

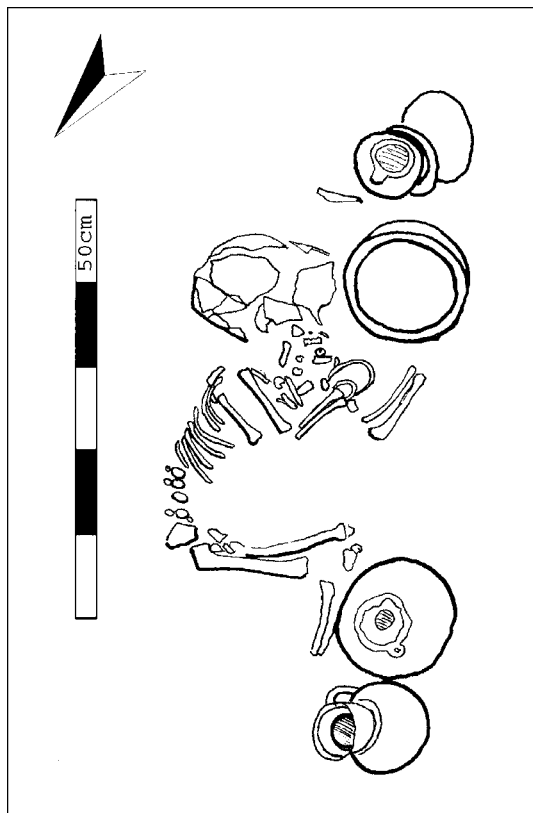


Fig. 13

Gohar Tappe. Burial AG2IV-7. Early Iron Age. Drawing by B. Ögüt, ASEC Project



Fig. 14
Gohar Tappe. Ceramic assemblage of Burial AG2IV-7. 1a–b, 2a–b Jugs with vertical handles (Find Nos. 66 and 67); 3a–b Jar with a vertical handle (Find No. 63); 4a–b Jar with closed spout (so called “milk-bottle”) (Find No. 64); 5a–c Fragmentary footed bowl (Find No. 65). Early Iron Age. Photos by B. Ögüt, ASEC Project

skull (**Fig. 13**). One of the vessels by the feet is a reddish jug with a sharply projecting ridge at the junction of neck and body (**Fig. 14,3a–b**). It is thick walled, hand-made and irregularly formed. The other vessel is similar in its general appearance but of better quality: the shape is more elegant, the walls are thinner and the surface is well polished and revealed a shining reddish colour after cleaning (**Fig. 14,4a–b**). A com-

mon and characteristic feature of these two vessels is the ridge between body and neck. Instead of a handle, a closed vertical spout is attached to the shoulder and the neck of the second jar. It is highly probable that the mouth of the spout was originally higher than the rim of the vessel. This is the case with other examples of this type. The spout obviously broke off before the vessel was used as a burial gift. Due to ethnogra-

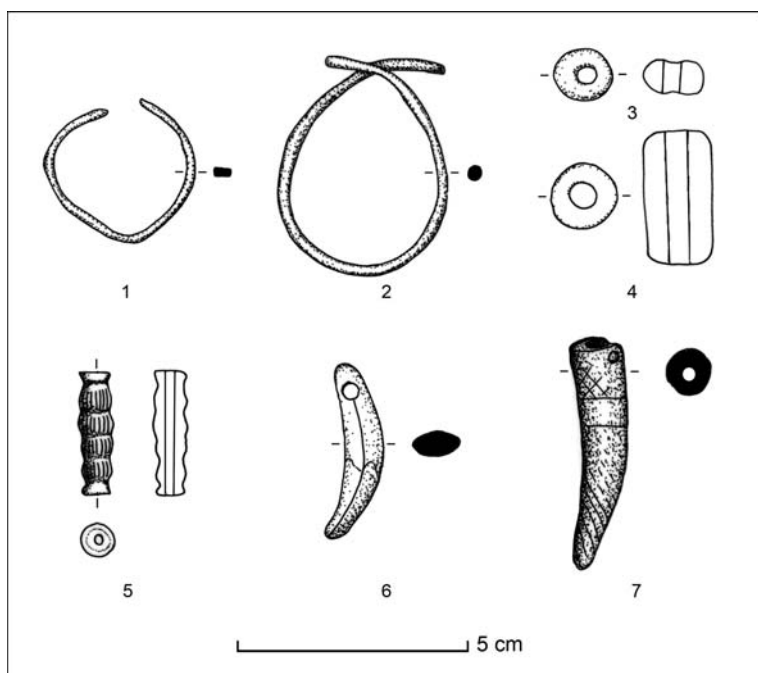


Fig. 15

Gohar Tappe. Personal ornaments from Burial AG2IV-7. 1–2 Bronze bracelets (Find Nos. 68–69); 3 Spherical bead of whitish frit (Find No. 73); 4 Cylindrical bead of opaque glass (Find No. 70); 5 Segmented bead of brownish glass (Find No. 74); 6 Animal tooth pendant (Find No. 77); 7 Horn pendant with incised decoration (Find No. 75). Early Iron Age. Drawings by N. Bagherpour and B. Ögüt, ASEC Project

phical parallels, the Iranian archaeologists call this shape شیرمک (“širmak”, milk-bottle).³⁶

Two of the vessels in the area of the skull are single handled, crudely-made jars of buff colour. The smaller one was placed into the opening of the bigger one (Fig. 14,1a–b; 14,2a–b). The third vessel is a bowl which was found directly in front of the skull. It is brick red and has a slightly rounded rim that is turned inwards (Fig. 14,5a–c). This bowl originally had three legs which were already broken off before the vessel was placed in the grave.

Small finds from this burial include two bronze bracelets around the right wrist, one with a round section and overlapping ends, the other with a rectangular section and open ends (Fig. 15,1–2). A number of beads were found in the area of the neck and the chest. Most of them are made of frit (e.g. Fig. 15,3), but some are of glass (Fig. 15,4) and shell. Two glass beads with ribbed decoration (Fig. 15,5) are of special interest and are discussed further below. A pierced animal tooth (Fig. 15,6) is similar to two other specimens from Burial AG2IV-20. By contrast a pendant made out of animal horn core with geometric incised decoration (Fig. 15,7) does not have any parallels at the site and remains a unique object.

As mentioned above, Burial AG2IV-9 had been disturbed before excavation. An intentional looting of the grave is unlikely, as the bones and the grave goods were left close to their original position. One of the two bronze bracelets was still in situ, encircling the right wrist (Fig. 16,1), while the other one was lying about 60 cm to the south-east (Fig. 16,2). Nearby, parts of the broken skull and a remarkable pendant of black material (perhaps jet) with incised decoration were found (Fig. 16,3).³⁷

Remains of a necklace, consisting of a large ribbed bead of whitish frit, two pierced shells, two lenticular ribbed frit beads (Fig. 16,5) at either side of a lozenge-shaped jet bead (Fig. 16,4) were still in situ. A brick red bowl with an open spout was placed in front of the feet near the north-eastern corner of the burial pit (Fig. 12,2).

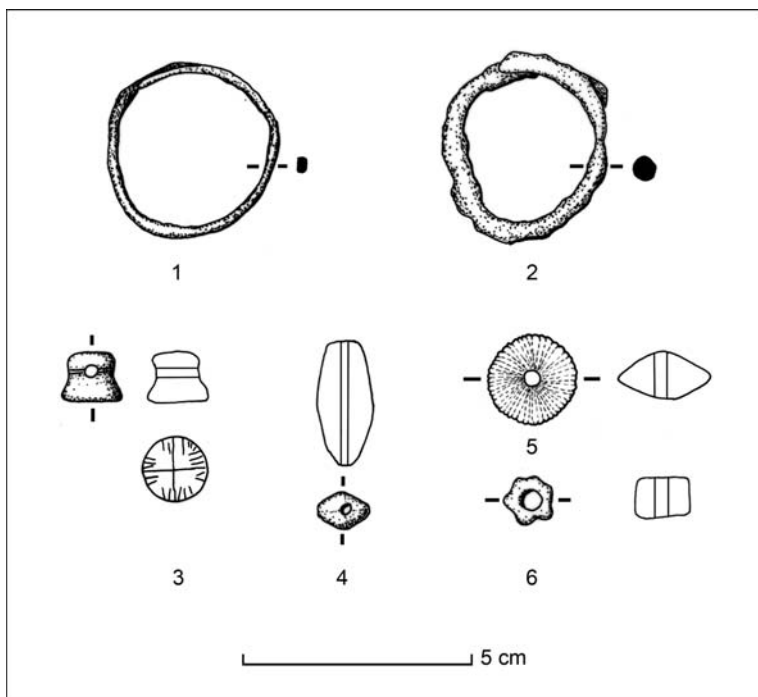


Fig. 16

Gohar Tappe. Personal ornaments from Burial AG2IV-9. 1–2 Bronze bracelets (Find Nos. 45–46); 3 Jet pendant with incised decoration (Find No. 31); 4 Lozenge-shaped jet bead (Find No. 60); 5 Lenticular frit bead of greenish frit or opaque glass (Find No. 58); 6 “Flower” bead of greenish frit (Find No. 61). Early Iron Age. Drawings by N. Bagherpour and B. Ögüt, ASEC Project

³⁶ E.g. Kambakhsh Fard 2001, 65.

³⁷ The material has not yet been examined by a geologist. For jet as material in the ancient Near East see Moorey 1994, 85.

Burial AG2IV-20 was found at a slightly lower level than the others, but it undoubtedly belongs to the same chronological horizon. The orientation of the body to the south-east and the combination and position of the grave furnishings correspond perfectly with the burials described so far.

Finds from this grave include a huge number of beads, mostly of whitish or greenish frit (**Fig. 17,1–10**), some shell pendants and a metal bracelet on each wrist. One of the bracelets was made of silver with a rectangular section (**Fig. 17,12**), the other of bronze with a more rounded rectangular section (**Fig. 17,14**). Two smaller bronze ornaments were used as ear-rings (**Fig. 17,13 and 15**). Again, only one pottery vessel was found. This small grey bottle was placed in front of the feet in the north-western part of the burial pit (**Fig. 12,1**). A pomegranate-shaped bronze bell was found in the filling of the burial pit, just a few centimetres above the skeleton (**Fig. 17,16**). A small pebble inside the bell was used as clapper. It is very likely that this object originally belonged to the primary contents of the grave or was intentionally deposited in the filling of the grave pit.

Near the north-western corner of trench AG2IV remains of another inhumation burial (AG2IV-101) appeared after the removal of Pithos Burial AG2IV-15. In contrast to the other infant burials in this trench, it contained the remnants of at least three children. It seems that a series of successive interments took place at the same spot. The remains of the already existing burial were pushed aside when a new inhumation was made, causing a certain amount of disturbance. A spouted jar of pattern-burnished grey ware – one of the above mentioned “milk-bottles” – was found south of the infant bones (**Fig. 18**). It is not clear with which of the inhumations it was associated. Only the bones of the last inhumation, together with two broken frit beads and a bronze bracelet might still have been in situ.

Another burial custom at Gohar Tappe is attested by the pithos burials which occur almost everywhere throughout the site, often in the same trenches as the inhumations. As these pithos burials normally do not contain any grave goods, dating is difficult. Similar burial practices are known from different areas of the Iranian Plateau from Proto-Elamite to Parthian times.³⁸ At Gohar Tappe, the pithos burials are surely of Bronze or Iron Age dates. Due to the above mentioned, highly complicated stratigraphical situation in the cemetery area on the eastern slopes of the main mound, the relationship between pot graves and inhumations

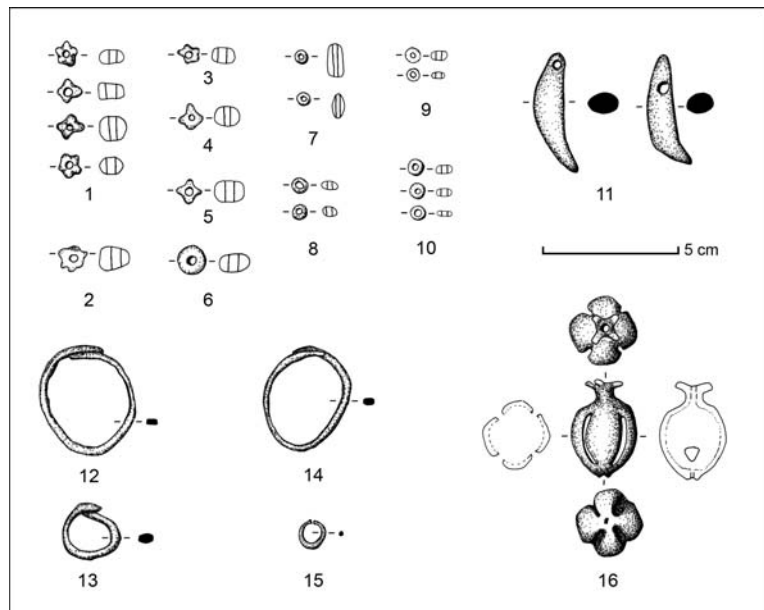


Fig. 17

Gohar Tappe. Personal ornaments from Burial AG2IV-20. 1–5 “Flower” beads of whitish and greenish frit (Find No. 34a–h); 6 Spherical bead of opaque glass (Find No. 52); 7 Tubular beads of dark to black glass (Find No. 50a–b); 8–10 Spherical beads of whitish frit (Find Nos. 37a–g); 11 Animal tooth pendants (Find No. 44a–b); 12 Silver bracelet (Find No. 40); 13 Bronze ear-ring (Find No. 43); 14 Bronze bracelet (Find No. 39); 15 Bronze ear-ring (Find No. 35); 16 Bronze bell with pebble used as clapper (Find No. 91). Early Iron Age. Drawings by N. Bagherpour and B. Ögüt, ASEC Project

remains somewhat uncertain. It was observed during former campaigns, that some of the pithos burials definitely cut into Late Bronze Age inhumation graves and should therefore be of a later date. Helpful information comes from trench AG2IV, where five pithos burials containing infant bones were excavated during the 2009 campaign. Three of them were damaged by agricultural activity before excavation. These burials consisted of storage jars of coarse ware with characteristic curved out, rectangular rims and large bowls of brick red burnished ware, used as a cover. The deceased were placed without orientation in a tightly flexed position inside the pithos.

The fairly well preserved pithos burial AG2IV-40 was dug into the settlement layers of Trench AG2IV and consisted of two pottery vessels placed on their sides in the bottom of the burial pit. An upright mud brick near the south-western edge of the pit could have served as some sort of enclosure (**Fig. 19,1**). In contrast to most of the other pithos burials, two oblong glass beads of dark colour were found amongst the bones of an infant. Outside but next to the vessels, in which the body was placed, a reddish-brown bowl with an open spout and a ring base (**Fig. 19,2**) and a dark grey

³⁸ See Azarnoush/Helwing 2005, 210 Fig. 32 for a Proto-Elamite example from Arisman and Kambakhsh Fard 1998 for the Parthian pithos cemetery at Germi.



Fig. 18
Gohar Tappe. Pottery
jar with closed spout
("milk-bottle") from Bu-
rial AG2IV-101 (Find
No. 326). Early Iron
Age. Photos by
B. Ögüt, ASEC Project

jar with a vertical handle (**Fig. 19,3**) were discovered. Both pieces are decorated with delicate pattern burnishing that is so far unparalleled at the site, although there are some similarities with the ceramic finds from other burials. It is not clear, however, whether these two vessels belong with the pithos burial or come from an older context that was disturbed when the pithos burial was dug.

As mentioned above, a large part of this trench was covered with pits. In Pit AG2IV-19, fragments of at least four spouted vessels, together with numerous sherds from other vessels were found. Pit AG2IV-31 contained the remains of at least two large storage jars, suggesting that settlement activity had taken place in the area of the trench or nearby. Apart from the pottery fragments, a number of large stones and a horse skull were found in this context. In Pit AG2IV-104, a whitish frit artefact with relief decoration in form of a cross and a number of small knobs was detected (**Fig. 20**). Four holes near the edge indicate that this could have been some kind of button. Pit AG2IV-23 is of special interest because of its unusual contents. It was almost circular with a diameter of circa 1.20 m and a rounded profile 0.80 m deep and was dug into the habitation levels of Trench AG2IV. The only metal artefact from the pit is a barbed trilobate socketed arrowhead of bronze (**Fig. 21,1**). Most of the pottery from the pit consisted of black and red burnished ware, but there were also some unusual pottery fragments. One of these is of coarse ware and was pierced by a number of holes (**Fig. 21,2**). Undoubtedly, this piece originally belonged to one of the above described incense burners. Another sherd is of hard fired ware with a brownish, slightly burnished slip and comes from the transition between the neck and shoulder of a jar (**Fig. 21,3**). This fabric is so far not attested elsewhere at the site. A rim fragment of a closed vessel-form with a broken handle has a reddish slip and burnished decoration (**Fig. 21,4**). Another brick red rim sherd of a bowl has no slip, but it is decorated with deeply incised cuts arranged in a crosshatched pattern (**Fig. 21,5**). This kind of surface treatment is very rare at Gohar Tappe. There is just one other fragment which was found in the same trench while cleaning the surface.³⁹

(C.P.)

³⁹ Close inspection of this sherd showed, that it was not a part of the same bowl, but originally belonged to a larger vessel.

Discussion and dating

Chalcolithic, Early and Middle Bronze Age

The 2009 campaign at Gohar Tappe revealed only limited material from these periods. Therefore, a new trench on the western slope of the main mound is planned for the next season to gain more information on the earlier stratigraphy of the site.

Concerning the Early and Middle Bronze Ages, Burial AXXX-22 represents without doubt the most important context from the 2009 excavations. Regarding its general appearance, this burial is very similar to the graves from Schmidt's Hesār IIIB horizon with its combination of ear-ring and sheet metal headband as well as the ceramic assemblage consisting of a beaker and a bottle of the type called by Schmidt a bottle-pitcher.⁴⁰ Similar forehead diadems and an almost identical bottle have been found in a couple of IIIB burials at Tappe Hesār.⁴¹ According to this evidence, this burial can securely be dated to the middle or later third millennium BC, indicating that the architectural remains in Trench AXXX are of an earlier date. Surprisingly, there are a number of burials at Gohar Tappe which have parallels among the graves assigned by Schmidt to Hesār IIIB⁴², material corresponding to the following Hesār IIIC (or Late III) horizon seems to be absent.⁴³

Late Bronze Age

Burials AJ2XX-2, AJ2XXI-11 and AG2IV-96 contained distinctive pottery types that show that they are of similar date. In previous campaigns, a number of tombs with comparable contents have been excavated at the site, providing a sound base for dating this group of burials to the Late Bronze Age.

One of the most characteristic ceramic shapes occurring in these burials is the spouted vessel (Fig. 8,4). Despite a considerable number of variants, all of the spouted vessels found at Gohar Tappe clearly belong to the same tradition. The vessel body itself is ovoid or cylindrical with a flat base and a grooved, inward curved rim. The closed part of the spout, sometimes decorated with one or two encircling ridges, is attached just below the rim and converts into a long, just slightly bent open channel. Opposite the spout, a small vertical rib serves as

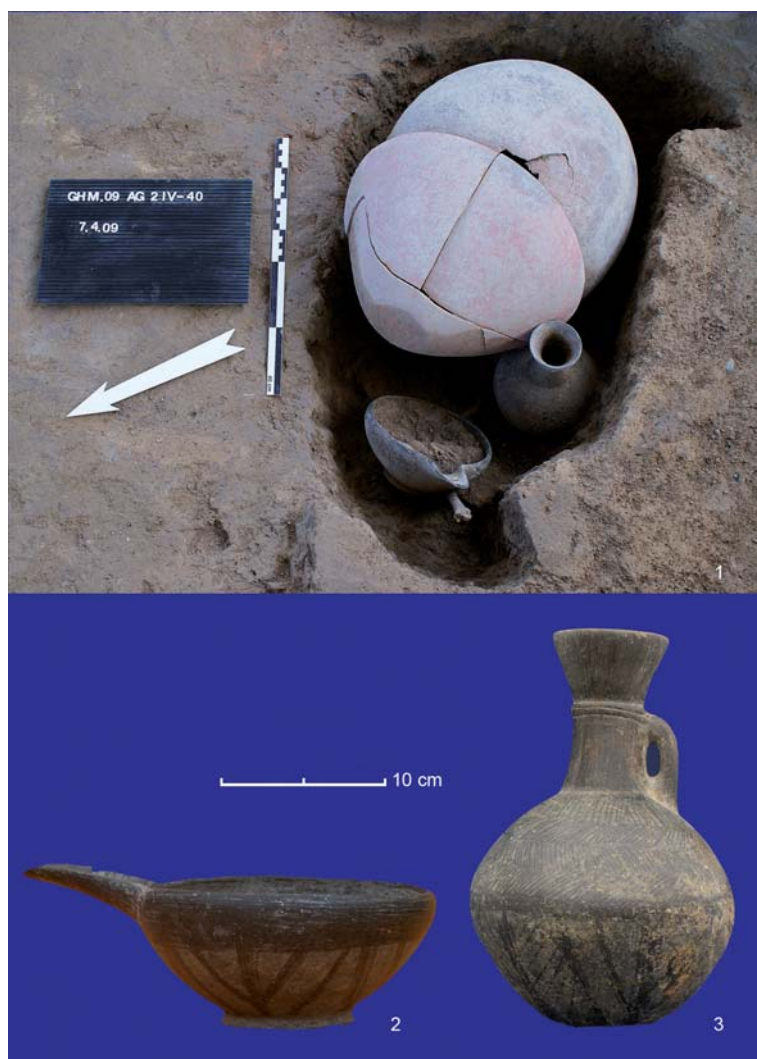


Fig. 19
Gohar Tappe. 1 Pithos Burial AG2IV-40 in course of excavation; 2–3 Ceramic finds next to Burial AG2IV-40: bowl with an open spout (Find No. 276); jar with a vertical handle (Find No. 285). Early Iron Age. Photos by B. Ögüt, ASEC Project

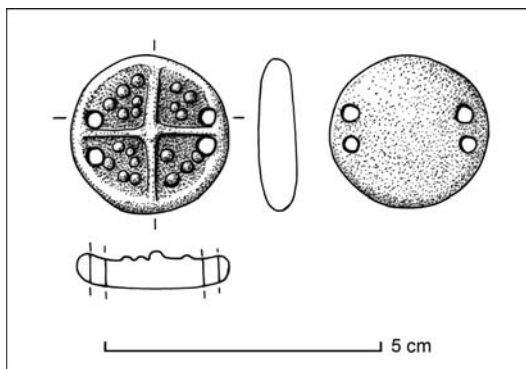


Fig. 20
Gohar Tappe. Frit button from Context AG2IV-104 (Find No. 309). Bronze to Iron Age. Drawing by C. Wolff, ASEC Project

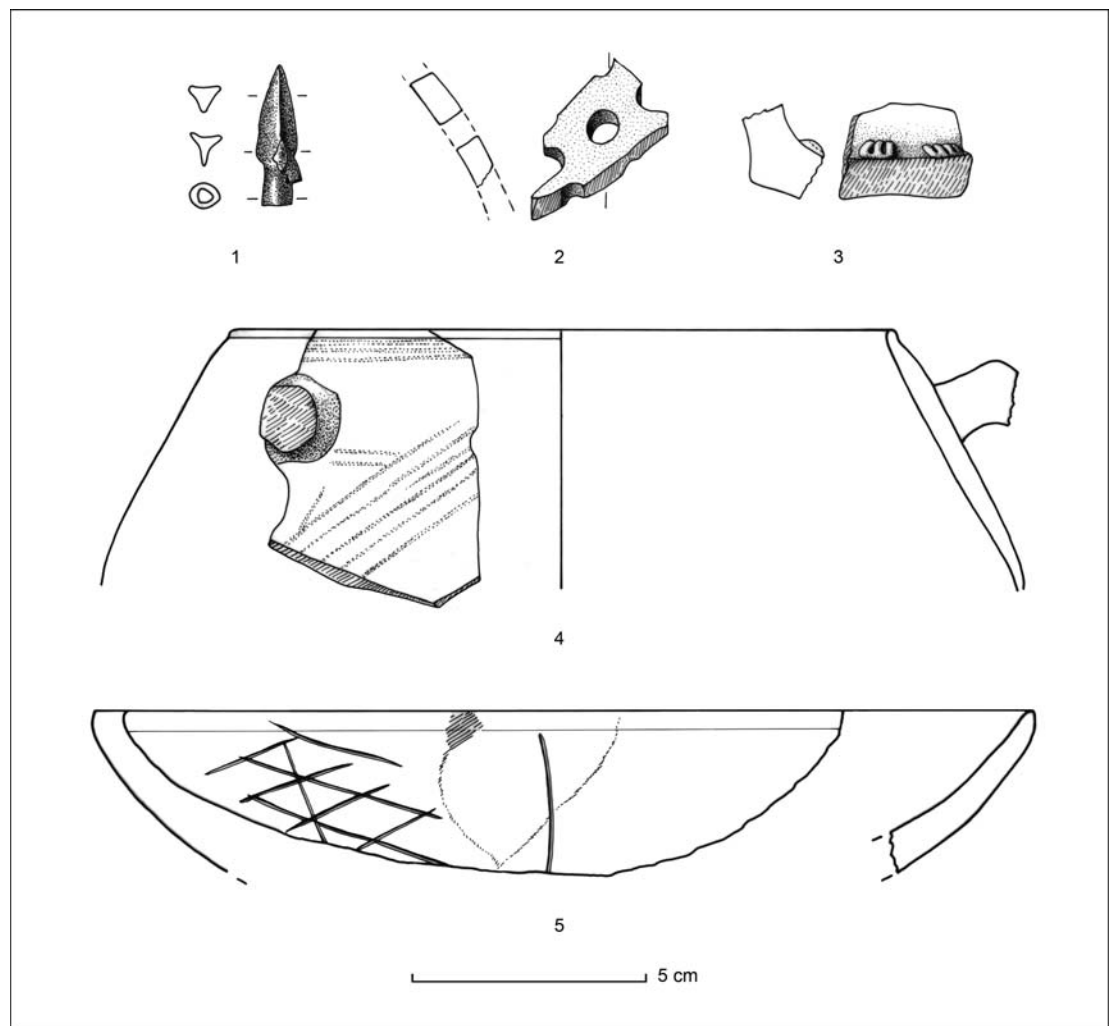
⁴⁰ Schmidt 1937, 180.

⁴¹ Schmidt 1937, Pl. LVI, H 3221.H 2362; 179 Fig. 106. The cemetery of Parkhai II in south-western Turkmenistan seems to be roughly contemporary and has been dated to the middle of the third millennium BC. Khlopin 1981, 27.

⁴² Schmidt 1937, 180–181; 244–251.

⁴³ None of the pottery vessels described by Schmidt 1937, 181–184 are present at Gohar Tappe.

Fig. 21
Gohar Tappe. Selected
finds from Pit
AG2IV-23. 1 Bronze tri-
lobate arrowhead (Find
No. 250); 2 Pottery
fragment of an incense
burner, coarse ware
(Find No. 108a); 3
Brownish fragment of a
jar with plastic decoration
(Find No. 108b); 4
Rim fragment of a closed
reddish vessel with
pattern burnishing and
broken off handle (Find
No. 108c); 5 Rim frag-
ment of a reddish bowl
with deeply incised decoration
(Find No. 112).
Early to Middle Iron
Age. Drawings by
B. Ögüt and C. Wolff,
ASEC Project



handle. Most of the variants from Gohar Tappe are also documented in the Sumbar cemeteries in south-western Turkmenistan,⁴⁴ but they are almost entirely absent amongst the pottery from Tappe Hesār, Turang Tappe and Šāh Tappe.⁴⁵ Good parallels can be found in the neighbouring provinces of Gilān and Tehrān. The spouted vessel from Burial AG2XX-11 illustrated in **Fig. 8,4** with its tall and slender body shows features that appear in the pottery from Iron Age cemeteries such as Marlik and Qeytariyeh.⁴⁶

Wide carinated jars with a cylindrical out-curved rim represent another diagnostic shape of this group of graves (**Fig. 8,6; Fig. 10,3**). Usually, these bottles are of grey colour and are pattern-burnished on the neck and the upper half of the body. Up to now, this form is mainly documented at Gohar Tappe. It is possible, though, that it derives from the Eastern Grey Ware tradition. Generally comparable finds come from Tappe Hesār IIIC,⁴⁷ but the best parallels are to be found in Grave CIIIs2 at Šāh Tappe IIa1.⁴⁸

Carination of the vessel outline is a common feature for a number of diagnostic shapes of the

⁴⁴ Chlopin 1986, 18 Fig. 6,5; 21 Fig. 7,1;7,3.

⁴⁵ At Šāh Tappe, just one fragment of a spout with ribbed decoration has been published. Arne 1945, Pl. LX Fig. 478. Spouted vessels from Tappe Hesār and Turang Tappe obviously belong to another type. Schmidt 1932, Pl. CXVI, H 420; Schmidt 1937, 181 Fig. 107, H 3511; Deshayes 1968, 152 Fig. 53.

⁴⁶ It should be noted that the double-bent spout, a typical feature of Early Iron Age vessels, is not attested at Gohar Tappe: Negahban 1964, Fig. 25; Kambakhsh Fard 2001, 55.

⁴⁷ Schmidt 1937, Pl. XL, H 3933; Pl. XLI, H 3490.

⁴⁸ This is obviously a rare shape at the site. According to the excavator, it derived from older types: Arne 1945, 202–205, Pl. XXX Fig. 213 middle. Orsaria 1995, 487, dates Šāh Tappe IIa2–1 contemporary with Hesār IIIC and Turang IIIC1.

Eastern Grey Ware north of the Alborz Mountains.⁴⁹ At Turang Tappe, a similar type of vessel with a much more prominent carination is attested in many of the Bronze Age burials.⁵⁰ It could be that the carinated jars of Gohar Tappe derive from the older biconical jars that also have elaborate pattern burnishing on the upper part of the vessel body. It appears that the carination became more and more reduced over time and finally disappeared at the beginning of the Iron Age.⁵¹

At Gohar Tappe, at least two variants of jars with vertical handles can be distinguished. The first one is usually made of grey ware, has a round body and a tall and slender, slightly flaring neck (**Fig. 8,1**). The ends of a small vertical loop handle are attached to the neck and the shoulder of the vessel. The second variant is made of brick red pottery with a slightly polished slip. It has a flat base and an ovoid body (**Fig. 8,2; Fig. 10,2**). In comparison to the first variant, the neck is broader, widening slightly towards the mouth and the handle is larger. Examples of this variant are often found with a spouted vessel and/or a carinated jar. Both variants have strong connections with the Early Iron Age pottery tradition of the Alborz Mountains,⁵² but are virtually absent at Eastern Grey Ware sites such as Šāh Tappe,⁵³ Tappe Hesār or Turang Tappe.

Another diagnostic shape of this group of graves is represented by the so-called incense-burners (**Fig. 8,5**). These vessels differ from the other pottery in the graves, because they are of a buff to buff-grey coarse ware without slip and surface treatment. Normally, these vessels have a carinated body, an outward turned rim and a ring base. One or two handles with vertical grooves are attached to the shoulder just above the carination. There are many variations, but the basic characteristics are al-

ways more or less the same and are easily recognised.⁵⁴ Only a limited amount of sherds of such vessels were found at Šāh Tappe,⁵⁵ while at Turang Tappe and Tappe Hesār, there are a considerable number of good comparisons.⁵⁶ Recently, some nearly identical specimens have been excavated at Tappe Narges near Gorgān.⁵⁷

Simple jugs with vertical handles like the example from AJ2XX-11 (**Fig. 8,2**) appear at Šāh Tappe, Tappe Hesār and Sumbar as well as at Marlik and other Iron Age sites in the Caspian region,⁵⁸ indicating that this shape was in use for a long period of time. The same is more or less true for bowls with open spouts (**Fig. 8,3; 10,1; 12,2; 19,2**). They occur from the third millennium BC onwards to the first half of the first millennium BC.⁵⁹ Good parallels for the deeper variants of spouted bowls come from Šāh Tappe Ila1, Sumbar and Qal'e Kuti I.⁶⁰ Nevertheless, some details such as specific patterns of burnishing seem to be characteristic for Gohar Tappe only (**Fig. 19,2**).

Besides the pottery, Burial AG2IV-96 also yielded some distinctive personal ornaments. Round bronze discs with embossed centres are known from Bronze Age Altyn Depe.⁶¹ In the Sumbar region, similar discs occur in a number of graves. Normally, two or three of them are located around the skull.⁶² So

⁴⁹ At Tappe Hesār, only some bottle-pitchers of Early III show this feature. For examples, see Schmidt 1937, Pl. XXXVII. In the following Late Hesār III (IIIC) horizon, carinated vessels are just a side issue within the corpus of pottery finds. Schmidt 1937, Pl. XLII, H 3584.

⁵⁰ Deshayes 1963, 96–97 Fig. 12. The upper half of the vessels from Gohar Tappe, however, is convex and not concave as in Turang Tappe.

⁵¹ During one of the former campaigns, a vessel of this type has been found together with a characteristic spouted jar, the latter being nearly identical to a find from tomb 12 at Marlik. This tomb clearly belongs to Marlik Stage I and is contemporaneous with Graves A–V and E.6 at Qal'e Kuti I, where similar spouted vessels have been found: Egami et al. 1965, Pl. XXV,1; Fukai/Ikeda 1971, Pl. XXXI,8. There are good parallels to these two vessels from former campaigns at Gohar Tappe. For the definition and dating of Stage I at Marlik see Piller 2008, 241–242.

⁵² Piller 2008, Pl. I,1–5; Fallahiyan 2004, 230 Fig. 9 and Egami et al. 1965, Pl. LI,16; Pl. LIX,3 for similar finds from Marlik, Jamšidābād and Qal'e Kuti.

⁵³ See Arne (1945, Pl. XXX, Fig. 213) for an interesting exception to this general rule.

⁵⁴ Incense-burners of the same type but with high ring bases are attested at Gohar Tappe, Tappe Narges and in the Ancient Dāhestān culture: Azamouh/Helwing 2005, XXX; personal communication G. Abbasi; Masson/Sarianidi 1972, 156–157.

⁵⁵ Arne 1945, Pl. LV, Fig. 435–437. No complete examples are published in the report.

⁵⁶ Wulsin 1932, Pl. XIII Fig. 5; Schmidt 1937, Pl. XXVI H 5215 (assigned to Stratum IIIA); Schmidt 1939, Pl. XLIII H 3304 and H 3300 (from Stratum IIIC). Schmidt 1937, 179–180, calls these vessels “brazier or charcoal carrier”. Ware, fabric and surface treatment are similar to the examples from Gohar Tappe. Such vessels occur in all sub-phases of Hesār III.

⁵⁷ Personal communication from the excavator, G. Abbasi.

⁵⁸ Arne 1945 203 Fig. 407; Schmidt 1937 Pl. XLI H 5235; Chlopin 1972, Pl. XLV Fig. 23; Piller 2008, 60; 168 Pl. I,8; Khalatbari 2004, 281 Fig. 75–76.

⁵⁹ Piller 2008, 170–172.

⁶⁰ Arne 1945, 202–203 Fig. 406, describes this shape as “representative for Ila1”. Chlopin 1986, 18 Fig. 6,IV; 19, mentions 95 examples from the Sumbar cemeteries. All of them have been found in burials of adults. In Qal'e Kuti, a similar vessel dating to the Late Bronze Age was found in Grave A–V. Egami et al. Pl. II,18.

⁶¹ Masson 1988, Pl. XV,4. These objects were found in the so called “priest's tomb” in room 7 of excavation 7 and date to the 3rd millennium BC.

⁶² Bronze discs, biconical spindle whorls and round ear-rings occur in several graves in Sumbar I, II and Parkhai I. Some of the inventories show a remarkable combination of objects that are also known from Gohar Tappe. For example, burial 4 at Sumbar II contained a biconical spindle whorl, three bronze discs with embossed centre and double suspension holes, two round earrings of thick bronze wire and two loop-headed pins. Two pins of this type have been found in a burial on the eastern slope of Gohar Tappe in one of the previous seasons. Burial 6 in Sumbar II contained one spindle whorl, one ear-ring and one bronze disc of above described types. Furthermore, there were two bronze pins with openwork heads. Two rectangular

far, no exact parallels to the spoon-headed pins are known. The biconical bead from Burial AG2IV-96 (Fig. 11,8) is comparable to examples from Tappe Hesār⁶³ and to the stone spindle-whorls of the Sumbar cemeteries.⁶⁴ Other finds link this grave to Tappe Marlik. Tomb 47, one of the older burials in Marlik,⁶⁵ yielded a necklace of bichrome glass beads, which are nearly identical to the specimens from Burial AGIV-96 (Fig. 11,8). Another glass bead with similar structure was found in Tomb B-III at Qal'e Kutī.⁶⁶

In this context, a burial from a previous campaign should be mentioned. Burial F.17 in trench AH2XX (Fig. 22) was partly disturbed by a later inhumation and a pithos burial, but fortunately, the upper part of the body was well preserved. Apart from an ear-ring, a finger ring and a necklace consisting of whitish frit beads, the remains of a headband with rectangular spacer beads could be observed. At least twelve such beads with two string holes and plastic decoration were found on and beneath the skull. Interestingly, a nearly identical burial practice occurred in Grave CII1 in Šāh Tappe.⁶⁷ Moreover, the ceramic inventory of Grave CII1 corresponds exactly to the pottery in the above described grave group at Gohar Tappe.⁶⁸ Burial F.17 itself yielded three pottery vessels. A reddish bowl with burnished decoration was turned upside down

and placed on top of animal bones and a spherical reddish vessel with a closed spout and a slender jar of light brown colour with a small handle and a vertical ridge were placed behind the skull. Both shapes are characteristic of the pottery from the graves in Sumbar.⁶⁹ Another similarity between Sumbar and Gohar Tappe is the use of mud-bricks to close the grave shaft.⁷⁰

From a typological point of view, the grave goods from the above described group show only a limited number of parallels to the latest phases of the Eastern Grey Ware tradition, but definite connections with the Late Bronze and Early Iron Age horizons of the neighbouring Gilān province. It is highly probable, though, that these burials mostly postdate the Eastern Grey Ware which ended around the 18th or early 17th century BC.⁷¹ As far as the personal ornaments are concerned, a combination of a biconical bead (or spindle whorl), rectangular spacer beads, bronze discs with central bosses and bronze pins can be observed in the Sumbar cemeteries. Furthermore, there are numerous ceramic parallels indicating a close chronological relationship between both complexes.⁷² To a certain extent, there also seems to be a chronological overlap with the Late Bronze/Early Iron Age ho-

spacer beads show good parallels to examples from the burial horizon on the eastern slope of Gohar Tappe. At necropolis I in Parkhai, there are three discs in the area of the head, a plain bronze stick and two round earrings. The same types occur in Burial AG2IV-96 at Gohar Tappe. Last but not least, Burial 14 of Parchai I contained two discs at the skull and two pins with openwork heads. Nearly identical pins were found at the eastern slope in Gohar Tappe. Furthermore, an identical short pin with openwork head comes from Yangikala in southern Turkmenistan (Masson/Sarianidi 1972, 123 Fig. 31a). For descriptions and drawings of the Sumbar graves, see Chlopin 1986, 117–119 Fig. 103–104 and 123–126 Fig. 110 and 112. It should be noted, that Chlopin 1986, Fig. 105–116 were mistakenly labelled as Parkhai III!

⁶³ Schmidt 1932, Pl. CXLV, H 492; Pl. CXLVI, H 490c, clearly representing beads, and Schmidt 1937, 231 Pl. LXIX, H 3520, described as “individual, light tan, slightly iridescent frit bicone”.

⁶⁴ Chlopin 1986, 16; 25 Fig. 5 D; 10,1. The occurrence of a bronze stick together with a biconical object could suggest that this also was a sort of spindle whorl. It has to be pointed out, however, that the spindle-whorls of Sumbar normally have larger dimensions than the bead from Burial AG2IV-96.

⁶⁵ Tomb 47 surely belongs to Stage IIa, but some of the finds indicate that – maybe together with Tomb 24 – it should be one of the oldest graves of this chronological stage. Glass beads of black and white colour have been found in Tombs 26, 36 and 47. They all belong to Stage IIa. Piller 2008, 71; 174. A date within the late 13th or early 12th century BC should be reasonable: Piller 2008, 223–224; 242–243.

⁶⁶ Egami et al. 1965, Pl. LXVII, 16B. Tomb B-III was presumably built in the Late Bronze Age/Iron Age I, but later reused during the early first millennium BC: Haerincx 1988, 73.

⁶⁷ The grave contained the skeletons of an adult woman and a small infant: Arne 1945, 132–133 Fig. 110.

⁶⁸ Arne 1945, Pl. XXX Fig. 213. The assemblage consists of two carinated jars, a bowl with an open spout, a coarse ware jug with a vertical handle and a jar with a vertical handle.

⁶⁹ Chlopin 1985, 19–23 Fig. 6, VIa; Fig. 6, XIIIa. The latter is a rare form in Sumbar. It occurs in a number of other burials at Gohar Tappe and in two Late Bronze Age burials at Lasulkan and Jamšidābād in Gilān (Egami et al. 1965, Pl. LXXXIX, a1; Fallahiyan 2004, 230 Fig. 10). Concerning shape and pattern-burnishing, there are two almost identical examples from Sumbar II, Grave 10 and Gohar Tappeh, Test Trench I, now in the Sāri Museum (Museum No. 7500). This points to close contacts between the two sites. The vessel from Sumbar is clearly an import from eastern Māzandarān: see Khlopin 2002, 317 Pl. 117,3.

⁷⁰ Fazeli Nashli 2007, 98 Fig. 81–82. For the burial customs at Sumbar see Chlopin 1985, 12–13. This feature is fairly uncommon at Gohar Tappe. There are also, of course, considerable differences between the ceramic finds from Sumbar and Gohar Tappe. For example, pattern burnishing is frequently attested at Gohar but seems to be completely absent from Sumbar. Furthermore, some finds from Sumbar such as cosmetic flacons or some pottery shapes such as Namazga V-VI type imports clearly indicate a strong connection to southern Turkmenistan that is not evident in eastern Māzandarān. Chlopin 1986, 31; Cleuziou 1986, 243. For the eastern connections of the Sumbar cemeteries see also Parzinger 2006, 431–432.

⁷¹ See Mousavi 2004, 92, for a short summary of the situation. Deshayes postulated that he had detected the most recent remains of the Eastern Grey Ware culture in Turang Tappe IIIC2 (Deshayes 1968; Deshayes 1972).

⁷² The material from Sumbar is more recent than the classical Eastern Grey Ware. Chlopin 1986, 17–25, defined twelve pottery types and three more or less singular vessels. There are no exact parallels in the ceramic finds from Tappe Hesār IIIB-C (Schmidt 1937, Pl. XXXVII-XLIII). Comparisons with Turang Tappe IIIC1–2 are restricted to a few forms like pots with handles and some spouted vessels. Compare Chlopin 1986, 19, types VI and VIII with Deshayes 1968, 152–153 Fig. 52–54. Parallels to Šāh Tappe IIa are also infrequent and of no great significance (Arne 1945, Pl. XL, Fig. 270; 271; 273). In contrast, there are a few imports from the Namazga culture of central southern Turkmenistan, one of them being of the Namazga V period, the

rizon of Marlik, Qal'e Kuti and other sites in Gilān for which dates between the 15th and the 13th century BC have recently been proposed.⁷³

Taking into account all the above considerations, this group of graves at Gohar Tappe clearly belongs to the Late Bronze Age and can be dated to between the 17/16th and 14/13th centuries BC. Needless to say, these dates are an approximation and may be revised in the light of further research.

Iron Age

It is not clear what happened at the end of the Late Bronze Age at Gohar Tappe. So far, the only remains of this period that have been found are burials. The size and structure of any corresponding settlement are still unknown. Typical material from Iron Age I is scarce at the site, perhaps indicating a hiatus in the local sequence. Nevertheless, there is at least one burial from the end of Iron Age I. The inventory from this warrior grave shows remarkable parallels to Grave 3 at Tappe Marlik, which can be dated to the 11th century BC.⁷⁴ Perhaps, this marks the re-use of Gohar Tappe as burial ground. Again, there is almost no evidence of a contemporary settlement. Hopefully, future excavations will provide some information on these questions.

As stated above, the infant inhumations from Trench AG2IV clearly all belong to a single chronological stage. Unfortunately, the numerous personal ornaments from these burials are not suitable for exact dating. This is true for the ear-rings and bracelets as well as for the beads and pendants. Fortunately, the ceramic finds from Burial AG2IV-7 provide us with some useful information. The so-called “milk-bottles” from two of the burials (**Fig. 14,4a–b; 18,1a–c**) show clear parallels to finds from some Iron Age cemeteries of the Tehrān region such as Qeytariyeh or Tappe Pardis.⁷⁵ As far as the incomplete bowl



Fig. 22
Gohar Tappe. Burial 17 from trench AH2XX in course of excavation. Late Bronze Age. Photo by A. Mahfrouzi ASEC Project

from AG2IV-7 (**Fig. 14,5a–c**) is concerned, similar vessels are to be seen in the collections of the museums in Sāri and Gorgān (**Fig. 23,1–2**): these show that the Gohar Tappe bowl originally was a footed vessel. Unfortunately, these vessels in the museum collections come from illegal excavations and nothing is known about their exact date and their find spot. Another variant of this shape has been found in the cemetery of Qeytariyeh, indicating a wide distribution for these



Fig. 23
Gohar Tappe. 1 Footed bowl from the collection of the Sāri Museum (Museum No. 7333); 2 Footed bowl from the collection of the Sāri Museum (Museum No. 7054). Vicinity of Behšahr (?). Early Iron Age. Photo by C. Piller, ASEC Project

others of the Namazga VI period which would indicate a date within the first half of the second millennium BC for the Sumbar cemeteries (Chlopin 1986, 31).

⁷³ Piller 2008, 237–238.

⁷⁴ This burial contained a dagger, a sword, twelve arrowheads, a spearhead and a bracelet, all made of bronze. Furthermore, a golden finger ring and a gold-covered bronze bracelet were found. The finds will be published by the excavator M. Miri Ahoodashti in the near future. In Tomb 3 at Marlik, identical daggers, spearheads and bracelets were found (Negahban 1995, Pl. X,128; Negahban 1995, Pl. VI,76–78). It has to be stated, however, that this type of simple open bracelet was in use for a long period of time and should not be used for detailed dating. In contrast, the daggers and spearheads from Tombs 2 and 3 belong to Marlik stage III with a possible dating within the later 11th century BC. For the definition and dating of Stage III at Marlik see Piller 2008, 235; 243.

⁷⁵ See Kambakhsh Fard 2001, 25 for a “milk-bottle” from Qeytariyeh. An example from Tappe Pardis was displayed in the exhibition “Symbols of our Land” in the National Museum of Iran during May and June 2009.

Northern Central Iran	Gilan Western Mázandarān	Eastern Mázandarān	Semnān/Damghān	Golestān/Gorgan Plain	South-Eastern Turkmenistan	Southern Turkmenistan Kopet Dagh
2800	Early Bronze Age <i>Kura Araxes</i> Qoli Darvish; Tappe Ostur Diārjān		Early Bronze Age <i>Eastern Grey Ware</i>			Early Bronze Age Namazga IV
2700					?	
2500			Middle Bronze Age <i>Eastern Grey Ware</i> Early Hesār III	Turang Tappe III Šāh Tappe IIb	Parkhai II Cemetery	Middle Bronze Age Namazga V
2300		Gohar Tappe, Qal'e Kaš Burials	Tappe Hesār IIIA-B			
2100	?				?	
1900	Middle Bronze Age <i>Sagzābād Painted Ware</i> <i>Central Grey Ware</i>		Late Bronze Age <i>Eastern Grey Ware</i> Late Hesār III	Šāh Tappe IIa2-1 Turang Tappe IIIC2		Late Bronze Age Namazga VI
1700	Late Bronze Age Tappe Sialk Cemetery A	Late Bronze Age Gohar Tappe Burials	Tappe Hesār IIIC		Sumbar Cemeteries Parkhai I Cemetery	
1500			Šāhrūd Cemetery	Tappe Narges		?
1300	Iron Age I <i>Early Western Grey Ware</i> Qeytanyeh Cemetery	?	?	?	?	Iron Age I Yaz I
1100		Iron Age I Marlik II-III Gohar Tappe Warrior Burial	?			
900	Iron Age II/III Sarm Cemetery Tappe Sialk Cemetery B	Iron Age II Qal'e Kuti II Gohar Tappe Burials and Pits in Trench AG2IV	Iron Age II Xarand Cemetery	Iron Age II <i>Ancient Daheshtān</i> Madau Depe, Izat Kuli Parkhai Settlement		Iron Age II Yaz II
700		Iron Age III <i>Orange Ware</i> Gohar Tappe Citadel Mound	Iron Age III Šāhmīrzād Cemetery	Turang Tappe IVA Turang Tappe IVB		

Tab. 1

Chronological table for the Bronze Age and Iron Age cultures in Northern Iran and Southern Turkmenistan. Conception by C. Piller

distinctive vessels.⁷⁶ The crude appearance of the pottery corresponds to the Iron Age II/III finds from Gilān and Tāleš.⁷⁷

The unusual rim sherds from Pit AG2IV-23 (Fig. 21,4–5) are both in ware and in surface treatment reminiscent of the Iron III Orange Ware of the neighbouring Gilān province.⁷⁸ A good comparison for the bowl fragment with incised decoration (Fig. 21,5) comes from Layer III at Tappe Jalāliye/Kaluraz,⁷⁹ indicating a date within the 9th to 7th centuries BC, while the sherd of the incense burner can be regarded as intrusive from Late Bronze Age contexts. This dating is confirmed by the trilobate socketed arrowhead; so far the only one recovered from the site (Fig. 21,1). Similar examples come from Turang Tappe IVA1 and Aq Tappe in the neighbouring province of Golestān and are also found in the Ancient Dahestān culture in south-western Turkmenistan.⁸⁰ According to our current knowledge, such arrowheads are introduced to the Near East during the 8th or 7th century BC and remained in use until after the middle of the first millennium BC.⁸¹ A number of pottery fragments from other pits in Trench AG2IV also seem to be of the same date.

In summary, the grave group of infant inhumations as well as most of the pits in Trench AG2IV should be dated to the Iron Age, quite likely to its second or third phases. As mentioned above, one of the pithos burials clearly disturbed the inhumation AG2IV-101 and should therefore be of a later date. Future investigations will show if this late dating applies to all of the pithos burials.

Although the absolute and relative chronology of this period in eastern Māzandarān is still not fixed, it is possible to suggest a date within the early first millennium (probably the 10th to 7th century) BC for the inhumations and pits in Trench AG2IV. The finds from Trench STSXVI are partly from the same period. Collapsed mud-brick structures and stone foundations (Fig. 28) from the

upper part of this step trench indicate that the steep mound in the north-western limits of Gohar Tappe was fortified and served as some kind of citadel. The area of Trench AG2IV, directly opposite the citadel, could have served as the contemporary settlement and burial ground.⁸² We still do not know when the citadel and settlement were abandoned. It has to be stated, though, that there is no evidence for significant Achaemenian or later occupation at Gohar Tappe.

(C.P.)

The Figurines from Gohar Tappe – a first impression

The figurines found in the first five seasons at Gohar Tappe show an impressive diversity. Besides the already well known figurine types, which have counterparts at other sites, there are some very special types without any known parallels have been excavated. Here a short summary of the range of figurines found in the excavations at Gohar Tappe is presented.

A great number of animal figurines have been found at Gohar Tappe. The most frequently represented animal by far is the bull.⁸³ They are of various sizes and are of varying quality, from very small (from 4 cm), massive and raw, to very large (up to 28 cm) and from crudely manufactured pieces to very detailed, extremely carefully made,

Fig. 24
Gohar Tappe. Pottery bull figurines. 1 Small clay figurine from context AJ2XX-18 (Find No. 68); 2 Fragmentary figurine from a pit, now in the Sāri Museum (Museum No. 218–19b). Early Iron Age. Photos by B. Ögüt, ASEC Project



⁷⁶ Kambakhsh Fard 2001, 64, left side.

⁷⁷ The Iron Age II and III in Gilān were defined by Haerinck 1988, 72–73. For crudely made jars with ridge on the shoulder from Mariān, see Khalatbari 2004, 274 Fig. 62; 276 Fig. 66,2 and 282 Fig. 78,3.

⁷⁸ For this ware, see Egami et al. 1965, 18 (pottery group III); Dyson 1979, 12–13; Haerinck 1988, 73.

⁷⁹ Ohtsu et al 2004, Fig. 148,101. Layer III dates to Iron Age II.

⁸⁰ Cleuziou 1985, Fig. 14; Shahmirzadi/Nokandeh 2001, colour plate XII,3. The pottery finds from Aq Tappe are basically dating to two periods. Painted ware belongs to the Early respectively Later Neolithic, while monochrome burnished ware is highly comparable to the pottery assemblage of Turang Tappe IVA and IVB. See Azamouh/Helwing 2005, 199. For Ancient Dahestān, see Masson/Sarianidi 1972, 157–158.

⁸¹ Cleuziou 1977, 189–193; Cleuziou 1986, 240. See Derin/Muscarella 2001, 194, for a summary on the finds from Iran. Recently a date in the late 9th century was proposed for the first appearance of socketed arrowheads in Anatolia (Hellmuth 2008).

⁸² The mixed remains of architecture, fire places and graves indicate a sparsely populated, open settlement. Modern evidence from the region has been documented by Luschey 1963, 387 Fig. 5; Pl. 41,1.

⁸³ Among the other figurines there are single pieces showing different animals such as birds and water animals.

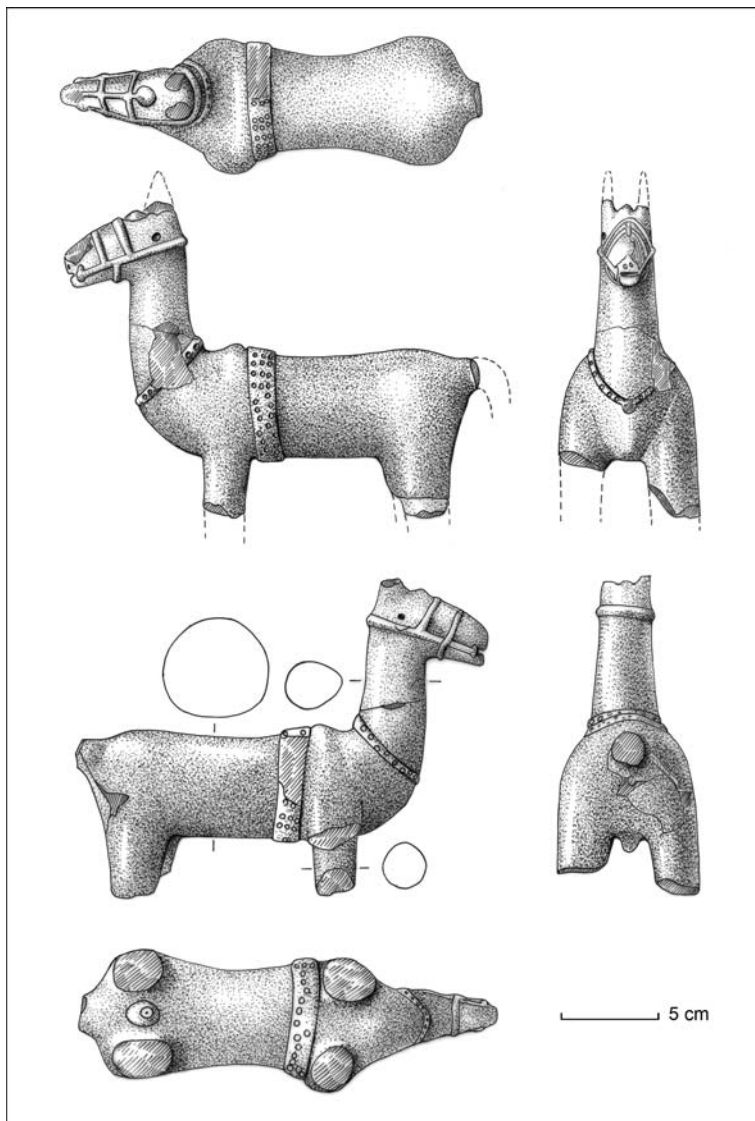


Fig. 25
Gohar Tappe. Pottery
horse figurine, now in
the Sâri Museum (Mu-
seum No. 218–19a).
Early Iron Age. Draw-
ings by C. Wolff,
ASEC Project

well-fired examples. **Figure 24,1** shows an example of the most common type of these figurines, found in the deposit layer of context AJ2XX-18. These small figurines are very rudimentary and similar crude animal figurines are found in many different periods and regions.

The function of the simple figurines is not certain. Some of them have a small string hole, indicating that they might have been used as pendants. The larger examples with string holes in the mouth region might have been originally equipped with a leash and used as toys. Figurines have been found in many different contexts at Gohar Tappe, but it should be mentioned that they have not yet been found in burials.

A number of figurines such as the reddish bull figurine shown in **Figure 24,2** are exceptional. Unfortunately, only the upper half of the figurine is preserved. It has a hollow body with solid hump and legs. The surface has been burnished and decorated with a pinprick-pattern around the hump. An opening in the mouth presumably served for the pouring of liquids.⁸⁴ As well as this example, two other hollow bull figurines and a horse figurine (**Fig. 25**) were found together in an Early Iron Age pit. In contrast to the bulls, the horse figurine is solid with a highly burnished surface. Bands decorated with circular impressions run around the neck and the body and may have been part of the harness (perhaps a collar and a girth strap). Furthermore, details of the bridle are clearly visible.

Finding exact parallels to these artefacts is not easy. Humped bull figurines have been found at Marlik in Iron Age burials dating to the 12th to 11th centuries BC.⁸⁵ Parallels to the horse figurine are even more difficult to find. Pottery figurines of horses are present in Altyn Depe, but clearly belong to a different tradition.⁸⁶ Some examples from Marlik were identified as “mules” by the excavator.⁸⁷ These well burnished figurines made of red clay were usually hollow and have spouts instead of mouths.⁸⁸ The band decoration with impressed circles can be seen on a humped bull and a human figurine from Marlik.⁸⁹ Like the bull figurines from Gohar Tappe, they were obviously used for pouring out liquids. To sum up, there are iconographic and technical similarities between the figurines from Marlik and Gohar Tappe, although the styles of the figurines from these two sites are different.

At Gohar Tappe, all four figurines were broken before they were disposed in the above mentioned pit. If the breaking of the figurines was intentional, one might suggest that they were used in rituals and had a cultic function.

The most impressive objects found in Gohar Tappe as regards the iconography are two human-shaped figurines. Both are made of stone and represent female torsos. The smaller one (**Fig. 26,1**), with a height of ca. 6 cm, consists of the upper part of the body including the hips. The head is missing. It has a flat base, on which it can stand upright: the legs were not shown. The arms are rendered as short conical stumps. The breasts are indicated by slight swellings and a narrowing of the torso shows

⁸⁴ See Masson 1988, Pl. XX,4 for a similar piece from Altyn Depe.

⁸⁵ Piller 2008, 173–174. Nearly all of the pottery animal figurines at Marlik are from Stage II. In Stage III, only a few examples occur.

⁸⁶ Masson 1988, Pl. XX,4; Pl. XLIII,9.

⁸⁷ Negahban 1972, 148 Fig. 18.

⁸⁸ Negahban 1972, 152.

⁸⁹ Negahban 1972, 145 Fig. 9, A–B; 148 Fig. 16.

the position of the waist. The second figurine (**Fig. 26,2**) with a height of ca. 9 cm shows more details. The nose is clearly visible and upon the head a bun-styled headdress can be recognized. Both figurines are regrettably stray-finds found on the surface of the site, but it is possible to suggest an approximate date for them by comparison with the numerous human figurines found on other sites in north-eastern Iran.

The so-called “Treasure of Astarabad” contained two female headless torsos made of stone⁹⁰ described by Rostovtzeff as follows: “Both torsos seem to be cut out of plates. The first figure has a rounded form, whereas the form of the second is angular. The first figure has the stump of a neck, and it may be supposed that the head has been broken off. As to the second figure it may be conjectured that the neck and head were separate parts, which have fallen off and been lost. The sex is indicated by the breasts, which are rounded in the first figure and narrow and oblong in the second, in the shape of a lentil. The centres in both cases are indicated by points. The sexual organs are not indicated”.⁹¹

At Tappe Hesār, one of the earliest figurines is a female torso made of baked clay from Stratum II.⁹² In the same stratum “a highly conventionalized human being” without an indication of its sex was found.⁹³ Like the figurines from Gohar Tappe, it has a flat base. The baked clay figurines from Stratum III are of simple shape.⁹⁴ Schmidt described a bone figurine and two alabaster figurines as “rather stereotyped Hissar IIIB and IIIC human figurines”.⁹⁵ Although these narrow figurines with tapering lower parts are depicted different from the flat bottomed figurines, their stylized character is comparable to the figurines found in Gohar Tappe.

A female-shaped pottery vessel was found together with a male skeleton in Tappe Hesār IIIC.⁹⁶ Another very similar human shaped vessel was discovered in Grave GIIIs7 in Šāh Tappe IIa.⁹⁷ Furthermore, there are two female figurines of clay and one stone idol from Šāh Tappe. Only the torsos of the



Fig. 26
Gohar Tappe. 1 Human shaped stone figurine from. Stray find, now in the collection of the Sāri Museum (Museum No. 6450); 2 Human shaped stone figurine from Gohar Tappe, now in the Sāri Museum (Museum No. 6451). Bronze Age. Photos by C. Piller, ASEC Project

clay figurines are preserved, but they are clearly female because of the breast in one case and the pubis in the other. The first is made of brown clay and was found in Stratum IIa.⁹⁸ The breast and the arms are broken off, and so no statement can be given about the position of the arms. The other is made of black clay. Only a part of the breast region remained.⁹⁹

Interesting human figurines were found by Wulsin at Turang Tappe.¹⁰⁰ These can be divided in two different groups. The first group consists of five figurines made of brown to reddish clay. Four of them depict women covering their breasts with their hands. Wulsin has given a detailed description of these figurines: “The rendering of the head is primitive though forceful, with prominent nose, square chin, and no mouth at all. The eyes were inlaid in some white material. By contrast the modelling of the body is very well done, with good proportions and anatomical fidelity”.¹⁰¹ “The top of the head is a knob with a groove around it, perhaps for attaching a wig”.¹⁰² This is similar to the larger figurine from Gohar Tappe, on which a comparable hairstyle or headdress is depicted.

The second group is represented by a figurine of gray clay, with outstretched arms and an elaborated headdress.¹⁰³ It was found in a burial

⁹⁰ De Bode 1844, Fig. 5–6.

⁹¹ Rostovtzeff 1920, 7.

⁹² Schmidt 1937, 117, Pl. XXVII, H 3644.

⁹³ Schmidt 1937, 117, Pl. XXVII, H 3735.

⁹⁴ Schmidt 1937, 186, Pl. XLV, H 3116, H 1758, H 3699.

⁹⁵ Schmidt 1937, 191 Fig. 114 Pl. XLVII; Schmidt 1937, 191. These figurines are highly stylised and hour-glass shaped. The numerous metal figurines found in high numbers at Tappe Hesār are not comparable with the Gohar Tappe objects (Schmidt 1937, 191–194). Nevertheless, the appearance of the human-shaped pottery vessel should be mentioned (Schmidt 1937, 194 Fig. 115). Although its function as a vessel is completely different, the shape could be comparable.

⁹⁶ Schmidt 1937, 194.

⁹⁷ Arne 1945, 207.

⁹⁸ Arne 1945, 253.

⁹⁹ Arne 1945, 254. “Although it is found higher up in the mound the black statuette belongs to an older layer (IIb) than the brown (IIa2).” This opinion seems to be influenced by the dating of figurines from Turang Tappe.

¹⁰⁰ Wulsin 1932, Pl. XV. Only three of the figurines are depicted.

¹⁰¹ Wulsin 1932, 10.

¹⁰² Wulsin 1932, 10.

¹⁰³ Wulsin 1932, 10 Pl. XVI.

“against the arm of the skeleton”.¹⁰⁴ Fragments of similar figurines were found in the later excavations directed by Deshayes.¹⁰⁵ One of these was described as a “figurine féminine très rudimentaire, en argile grise polie”.¹⁰⁶ Only the torso remained, but its sex is indicated by the depiction of the pubic region.

Taken all together, it can be concluded from these stylistic comparisons that the human figurines from Gohar Tappe are to be dated approximately to the Bronze Age. It is possible that these figurines were used in cultic contexts, particularly since examples were found in burials in Šāh Tappe and Tappe Hesār. Because of their number and the exceptional variety the figurines from Gohar Tappe merit further analysis.

(B.Ö.)

Beads and pendants from Gohar Tappe – an overview

During the 2009 campaign, numerous beads and pendants have been recovered from burials in Gohar Tappe. They differ in material, size, shape and manufacturing technique. In addition to simple shapes (spherical, oval, ring, cylindrical and biconical) several beads and pendants with more elaborate shapes have been excavated. The dominant materials are frit and glass, but other materials such as metal, stone,¹⁰⁷ shell, bone and jet were also used for the manufacture of beads and pendants.¹⁰⁸

Spherical to ring-shaped beads

Several spherical beads of small size were discovered in Burials AG2IV-20 (**Fig. 17,9–10**) and –96. They are mostly made of white frit (L 0.25–0.8 cm, D 0.5–0.66 cm), while one piece is made of a comparatively hard material, probably opaque glass (**Fig. 17,6**). In Burial AG2IV-96 two spherical beads were found close to the hand of the skeleton. They are of dark color with a white stripe surrounding the center (**Fig. 11,10**). Comparable spherical beads

of white color are known from the Tāleš region where they have been dated from the early first millennium BC to the Achaemenian period.¹⁰⁹ At Tappe Marlik, spherical beads with a white stripe were found in Tomb 47, dating to Iron Age I.¹¹⁰

Oval and cylindrical beads

A few beads from Burials AG2IV-7 and –20 (**Fig. 17,7**) are made of dark colored to black glass, but the majority is of white frit. Their shape can be described as oval (L 0.9–1.1 cm, D 0.45–0.85 cm) or cylindrical (L 2.3–3 cm) the latter being probably of limestone. White colored oval and cylindrical beads are known from Tāleš, from the first millennium to the Achaemenian period, and from Šāh Tappe.¹¹¹

A comparatively large sized cylindrical bead (L 3.2 cm, D 0.85 cm) from Burial AG2IV-7 (**Fig. 15,4**) is made of a hard white material, probably opaque glass. It was found together with the segmented beads and some black longish ovaloid beads.

Biconical beads

Eleven biconical or oval beads (L 1.0–1.7 cm, D 0.4–0.6 cm) were found together in the head region of the Burial AG2IV-96 beneath a vessel (**Fig. 11,13**). Some of them have a white stripe around the centre of the bead. The original colour and material is not definite, but it might be glass. One of the biconical beads differs from the others concerning its size (L 1.4 cm, D 1.4 cm) and shape (**Fig. 11,11**). It is probably of opaque glass and was found close to the hand of the deceased together with two spherical glass beads of dark color with white stripes.

“Flower” beads

Several beads from Burials AG2IV-6 and –20 (**Fig. 17,1–5**) are shaped like a “flower” with five to six protuberances, while others have only four. The beads are manufactured irregularly and made of dark to black coloured glass or whitish to greenish frit (L 0.45–0.9 cm and 1.95 cm; D 0.9–1.1 cm and 1.3 cm). A similar bead of black material has been found at Tappe Narges.¹¹²

¹⁰⁴ Wulsin 1932, 10 Pl. XVI.

¹⁰⁵ For example Deshayes, 1963, 99 Fig. 21.

¹⁰⁶ Deshayes, 1965, 91 Pl. XXX, 30.

¹⁰⁷ Stone beads made of carnelian, rock crystal and lapis lazuli have been found in former campaigns at Gohar Tappe. They have been documented by the German team in the Museum of Sāri and will be part of a future publication. Probably some of the beads and pendants came to the site by trade. The cowrie shells and lapis lazuli beads point to distant trading connections.

¹⁰⁸ For a review of the materials used in the ancient Near East see Moorey 1994, 85–98.

¹⁰⁹ Khalatbari 2004b, 295 Fig. 96.

¹¹⁰ Negahban 1996, 287.

¹¹¹ Khalatbari 2004b; Arne 1945, 288.

¹¹² Personal communication by the excavator G. Abbasi.

Lenticular ribbed beads

Two distinctive lenticular ribbed beads of greenish frit or opaque glass from Burial AG2IV-9 (**Fig. 16,5**) are larger (L 0.95 cm, D 1.85 cm) than most beads at the site. They are comparable to those from the Tāleš region, Marlik Stages I and IIa (ca. 12th century BC) and Dinxāh Tappe II (9th–10th century BC). Further finds come from a Middle Bronze Age grave in Metsamor in Armenia and from the 14th century shipwreck of Uluburun.¹¹³

Segmented beads

Two segmented beads were found in Burial AG2IV-7 (**Fig. 15,5**). They are made of a hard, orange to brownish glass and have four ribbed segments with collars at both ends (L 2.9 cm, D 0.85 cm). They seem to be shaped by hand and not in a mould and the incisions marking the ribs are irregular. Two beads with two segments and collared ends reasonably similar to the beads from Gohar Tappe are known from the Tāleš region.¹¹⁴ They were excavated in a grave with several secondary burials, for which reason the date of these beads remains uncertain.

Cylindrical bronze bead

A cylindrical bronze bead (L 0.45 cm, D 0.3 cm) was found close to the skull in Burial AG2IV-96 (**Fig. 11,14**). It is made of sheet metal and has a large string hole. Larger metal beads have been found in graves in Ergeta and Bornighele in Georgia. They are made of bronze or copper sheet and date to various periods.¹¹⁵

Jet beads and pendants

A lozenge-shaped jet bead (**Fig. 16,4**) with smooth edges (L 2.8 cm, D 1.2 cm) was found in situ between two lenticular ribbed beads in Burial AG2IV-9. From the same burial came a bell-shaped pendant (L 1.15 cm, D 1.4 cm) with a horizontal string hole through the narrowest part, which is decorated with two incised horizontal lines (**Fig. 16,3**). A cross is incised on the flat circular base, which is also decorated with numerous incisions irregularly placed around its edge. Jet beads are known from Lorestān.¹¹⁶

Shell pendants

Several pierced bivalve shells have been recovered at Gohar Tappe. They come from Burial AG2IV-20 and Pit AG2IV-5. Similar shell pendants have been found in Šāh Tappe.¹¹⁷ Their appearance is similar to that of the bivalve *Didacna trigonoides* which is native to the Caspian Sea.

At least seven pierced cowrie shells have been recovered in the Gohar Tappe excavations. They come from Burials AG2IV-7, –9 and –20. Cowries have been excavated at many other sites in Iran including Qasr-i Abu Nasr, Masjid-e Suleiman, Marlik, Qal'e Kutī, Narges and Dinxāh Tappe.¹¹⁸ These finds date from different periods. Recently, cowrie pendants similar to those from Gohar Tappe have been found in Kul Tārike.¹¹⁹

Tooth pendants

Three animal teeth with large string holes have been excavated in Burials AG2IV-7 (**Fig. 15,4; 17,11**) and –20 (H 4.2 cm and 2× H 4.25 cm). Seven similar pendants were found in the kurgan of Martqopi in Georgia. They were identified as boar teeth and dated to 2500–2300 BC.¹²⁰

Horn pendant

A small pendant made from a horn-core (H 5.7 cm) with incised decoration and a string hole at its end (**Fig. 15,7**) was found in Burial AG2IV-7. An undecorated band separates an upper panel of cross-hatched incisions from a lower band of oblique parallel incised lines.

Conclusion

At Gohar Tappe the excavators were able with diligence and patience to establish the positions of the personal ornaments in the graves. In several graves it was possible to distinguish necklaces from hair ornaments. The alternating black and white/greenish “flower” beads from Burial AG2IV-20 and the lenticular ribbed beads with the lozenge-shaped jet bead from Burial AG2 IV-9 were found close to the neck and breast of a child. They surely were worn as necklaces.

Eleven biconical and oval beads have been found in the head region together with hairpins in

¹¹³ Khalatbari 2004b, 295–296; Fig. 96; Fig. 98; Muscarella 1974, 74 B8e Burial 5; Piller 2008, 237–239; Pl. VI,8; Khanzadian 1995, Pl. IV, Kurgan X, collier 3; Gülçür 1995, 458.

¹¹⁴ Khalatbari 2004a, 90 Fig. 75.

¹¹⁵ Gambaschidze et al. 2001, 298 No. 129; 391 No. 338.

¹¹⁶ Vanden Berghe 1972, 6.

¹¹⁷ Arne 1945, 287 Pl. 75 Fig. 589a–b.

¹¹⁸ Ghirshman 1976, Pl. 108,4; Muscarella 1964, 65 Fig. 36 h. 67; Whitcomb 1985, 187 Fig. 70 t, v.

¹¹⁹ Rezvani/Roustaei 2007, 150; 166 Pl. 8g.

¹²⁰ Miron/Orthmann 1995, 228 No. 62.

Burial AG2IV-96 and were part of an ornament for the headdress or the hair of the deceased. In the same grave, other beads were found close to the hand of the skeleton. It is unsure if they belonged to a bracelet or a necklace. Notwithstanding, all those observations do not exclude the possibility that some of the beads were sewn onto textiles and belonged to the costume or the headgear of the deceased.

(N.B.)

A Digital Database for Gohar Tappe

The detailed documentation of an archaeological excavation is the main source for the subsequent analysis and publication of the results. For this reason, a digital database was developed for the 2009 campaign of the Iranian-German excavations at Gohar Tappe. The aim was to store the information recorded from the excavation properly and to allow these data to be easily accessed for further studies.¹²¹ Therefore, the main features of the database were that it should be straightforward to use, that it should be possible both to enter and to recover the data quickly and accurately and that it should be easily adapted to unforeseen circumstances.

To create a relational database (db)¹²² matching these requirements that could be installed as a standalone application on low-tech systems, FileMaker® Pro database software was used in its version Advanced 9.0v1.¹²³ Thus, the db can run on Windows® operating systems¹²⁴ without installing the database program software and without being connected to the internet. Because of its small size of c. 90 MB,¹²⁵ it can easily be transferred onto different computers. In addition, it is able to be run from a flash drive.

The db has several different input masks, which represent data tables (**Fig. 27**), and naviga-

tion layouts, which are supplemented by navigation buttons within all layouts. A number of drop-down lists are given that can be extended by the user if necessary. Furthermore, through the input forms media data such as photos and drawings can be attached to the corresponding data describing the context, the burial or the find. It is possible to extract all the information about one find or feature on a single screen. Another feature included is the possibility to back up the whole db by one click. These and other features were integrated into the design to make the db more convenient for users who are not familiar with the software program.

Another important aspect of this project was security. Since more than one person was responsible for data input, they had to have the authority to do this, but permission to alter data already entered was restricted so that unauthorised changes could not be made. For this reason, a certain amount of rights management was integrated into the program.

To give the excavator not only a way of storing information but also to assist in the recording of that information in the field, the db would print out find-slips, context forms and burial sheets. This feature proved to be extremely useful during the field work of the 2009 season at Gohar Tappe. These easy-to-use forms with a check-box style layout could be filled out in the field and easily transferred into the digital version. These printable layouts, including a digital diary, are integrated into the db. Therefore, no other office software is necessary.

One of the main features of this db is its ability to make quick changes to the program without having to create a new runtime environment¹²⁶ and without having to change the search ability (cross-referencing) of every data field. The former was of crucial importance because the db had to be changed nearly daily at the beginning of the cooperation between the Iranian and German excavation teams in order to synchronize the different documentation systems and to find a design that would be satisfactory and convenient for all users. Search ability is one of the prime functions of a relational database, i.e. the ability to carry out specific searches combining different aspects of a group of features or finds and listing all records which match these similarities for further studies.¹²⁷

(T.N.)

¹²¹ A very useful example for a relational database-system and a documentation management system is SIALKDAT which was created for the Sialk Reconsideration Project. Although it was constructed with the help of another software platform, the principles and the structure of both databases are similar. See Helwing 2004.

¹²² For further information see, for example Vossen 2008.

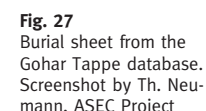
¹²³ FileMaker is a trademark of FileMaker, Inc., registered in the U.S. and other countries. ScriptMaker and the file folder logo are trademarks of FileMaker, Inc.

¹²⁴ For installation of FileMaker® Pro, Windows XP Professional or Home Edition (SP 2) upwards is recommended. Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

¹²⁵ The size of 90MB just refers to the runtime files of the db, which includes all language packages available and not to any folders or recorded data which has been entered into the database.

¹²⁶ This is possible because of the platform design the database software provides. For detailed information about FileMaker Pro see <http://www.filemaker.com>.

¹²⁷ For the capability of database-systems, their use for archaeology and the development of archaeological information systems (AIS), read the introductory work by Häuber/Schütz 2004.



Until now, no Neolithic remains have been detected at Gohar Tappe. Nevertheless, the nearby sites of Komišān, Toq Tappe and Abbasi Tappe indicate considerable Neolithic settlement activity in the region.¹²⁸ At that time, eastern Māzandarān was part of a far-reaching cultural complex. Influences and parallels are evident both with the Češme Ali horizon on the Iranian Plateau and the Jeitun culture of southern Turkmenistan. This picture changes completely in the Chalcolithic. Now, eastern Māzandarān and the Gorgān plain are part of a consolidated cultural complex which is characterized by the presence of a characteristic black on red painted ware.¹²⁹ There is almost no evidence for contacts with other areas, neither with Turkmenistan nor with the Iranian Plateau south of the Alborz range. According to our current knowledge, Gohar Tappe was first settled at this time, though

In the Early Bronze Age burnished grey ware became predominant in the local pottery assemblages. Gohar Tappe grew rapidly, eventually covering an area of about 30 hectares in the early third millennium BC. It is highly probable that this site was one of the large city-like centres of the so-called “urban phase” of north-eastern Iran and neighbouring southern Turkmenistan.¹³¹ We still do not know when the decline of this culture started, but the numerous Hesār IIIB burials on the eastern slope and this year’s discovery of a Hesār IIIB burial cutting into settlement layers in Trench AGXXX show that the site began to shrink at least from the second half of the third millennium onwards. Diagnostic material of Hesār IIIC-type is missing so far at Gohar Tappe, whilst it is well attested at sites like Turang Tappe and Šāh Tappe. It is not clear, whether this gap is just due to the current state of research or whether there was a remarkable break in the local sequence of settlement in

¹²⁹ This ware is present at all major sites north of the mountains. Wulsin 1932, Pl. XXIV,C and Deshayes 1967 for Turang Tappe; Arne 1945, 168 Pl. XC-XCI for Sāh Tappe; Abbasi 2007, 256-257 for Tappe Narges; Fahimi 2006, 81 Fig. 7 for Anjirab.

¹³¹ See, for example, Kohl 1984, 117–119; 133–134. A detailed discussion of this issue cannot be part of this preliminary report.



Fig. 28
Gohar Tappe. Trench
ST52XVI, context 32.
Stone foundations of
the surrounding wall on
the citadel mound.
Early to Middle Iron
Age. Photo by M. Miri
Ahoodashti,
ASEC Project

eastern Māzandarān. The latter possibility could indicate that eastern Māzandarān and the Gorgān plain followed a different development history from the beginning of the second millennium BC onwards.

The distribution of Late Bronze Age burials – clearly representing extramural cemeteries – on the mound shows that the settlement at Gohar Tappe was much smaller than in previous periods. Nevertheless, these large burial grounds indicate that Gohar Tappe was still of some importance.¹³² Further investigations have to reveal how the local Late Bronze Age culture could survive at Gohar Tappe, while other large sites, namely Turang Tappe, Sāh Tappe, Yarim Tappe and Tappe Hesār were abandoned for at least hundreds of years, some of them never to be occupied again. Over the past decades, different attempts have been made to answer this question.¹³³ One of the main reasons could have been climate change. Gohar Tappe is located in an area which was surely not as susceptible to climatic change as the open plains where Hesār, Turang or Sāh Tappe were situated.¹³⁴ Even today, the annual

rainfall in eastern Māzandarān is much higher than in the Gorgān plain.¹³⁵ The same was undoubtedly true in prehistoric times. Therefore, it was possible for the settlements in the vicinity of Gohar Tappe to survive, even when the other sites of the Eastern Grey Ware culture further to the north-east were already deserted.

The newly discovered Late Bronze Age horizon of Gohar Tappe is of great importance, because it shows remarkable similarities with the culture of the Sumbar cemeteries in Turkmenistan and clearly corresponds to the transition to the earliest stages of the Late Bronze/Early Iron sequence in Gilān, represented by Stage I at Tappe Marlik and a number of tombs in Qal'e Kutī.¹³⁶ It has been proposed that the Sumbar cemeteries could fill the chronological gap between the downfall of the Bronze Age and the rise of the Early Iron Age in the central and western parts of Iran.¹³⁷ This proposal has now been confirmed by the new information from Gohar Tappe.¹³⁸ Nevertheless, a detailed study of the evidence is required to gain a clearer understanding of the transition from the Bronze Age to the Iron Age in this region.

In the Late Bronze and the Early Iron Age, the western orientation of Gohar Tappe is clearly attested by the numerous parallels to the cultures in the mountain valleys of Gilān and the region of Tehrān. Weapons, pottery types and personal ornaments show that both areas were in close contact during this time. It is possible, however, that there was another gap in the Gohar Tappe sequence during large parts of the Iron Age I. Further investigations have yet to reveal, whether this proves to be true or whether evidence will be found to fill this gap. So far, the above mentioned warrior burial from the very end of Iron Age I seems to reflect a new beginning at the site. A date within the 11th or early 10th centuries would also correspond to the

¹³² Mousavi (2008, 117) argues that extramural cemeteries are representing a nomadic element in the prehistoric population of the region. Although it may be true that the mountainous areas played a gradually greater role in the subsistence of the local population, a nomadic lifestyle has to be rejected at least for eastern Māzandarān. There are no signs for nomadism either in prehistoric or in historic times.

¹³³ A comprehensive discussion of this issue can not be part of this preliminary report. For a summary of different theories see Mousavi 2005, 94–95; 115–117.

¹³⁴ Deshayes (1968b, 38) proposed a gradual desertion from east to west. Sites which lay close to the Caspian Sea were able to survive, while the settlements near to the Turkoman steppe had to be left much earlier.

¹³⁵ Ehlers 1980, 71–73, chart 3; Cleuziou 1986, 225. At nearly the same time, in southern Central Asia, the so called urban phase of the Bronze Age with the large centres of Namazga, Altyn Depe and other sites is declining while there is a considerable increase in settlement in the Margiana and Bactria, where the supply with water and other goods was much better (Parzinger 2006, 431–432).

¹³⁶ Cleuziou 1986, 242–243; Dittmann 1990, 134; Piller 2008, 241–242.

¹³⁷ Dittmann 1990, 134–135; Piller 2004, 158; 170–171. These authors also proposed strong connections between Sumbar and Necropolis A of Tappe Sialk, indicating a similar chronological setting. In contrast, Mousavi 2001, 187, favoured a date at the end of Iron Age I for Sialk A. See Helwing 2005, 40–41, for discussion of this issue.

¹³⁸ The small cemetery of Šāhrūd also seems to belong to this chronological stage: Mousavi 2005, 94; 99 Fig. 4; Mousavi 2008, 111–112.

resettlement of the Gorgān plain and the rise of the Ancient Dahestān culture.¹³⁹

During the following Iron Age II period, there are nearly no parallels to the Ancient Dahestān complex, which covered the area of the Sumbar valley, the Meshed-Misrian plain and even the Gorgān plain.¹⁴⁰ This leads us to the conclusion that there was a cultural border somewhere between the Gorgān plain and the coastal areas of Māzandarān.¹⁴¹ Interestingly enough, this was exactly where there had been a cultural border at the time of Late Hesār III (Hesār IIIC) culture.

Apart from some stray finds of Islamic pottery, the latest use of Gohar Tappe for settlement and burial can be dated to Iron Age III. According to evidence from the neighbouring provinces of Gilān and Golestān, this phase should be dated around the 8th and 7th century BC, clearly predating the rise of the Achaemenid Empire in the middle of the 6th century BC. A number of pits in trench AG2IV and some architectural remains from the step trench STSXVI belong to this chronological stage. It seems that the steep mound in the north-eastern section of Gohar Tappe was used as a fortified citadel, such as those often observed on Iron Age sites.¹⁴²

In conclusion, the results from Gohar Tappe have provided valuable information for assessing the Bronze Age and Iron Age sequence of eastern Māzandarān within the larger geographical region. During various periods in the past, there were numerous connections not only to different regions within Iran but also to regions in Central Asia. To study these interactions in detail, a new international approach transcending beyond the borders of modern states of the region is needed.

(A.M./C.P.)

Bibliography

- Abbasi 2007
G. Abbasi, Narges Tappeh, Dašt-e Gorgan, vol. 2 (Tehran 2007) 247–261.
- Arne 1945
T. J. Arne, Excavations at Shah Tepé, Iran (Stockholm 1945).
- Azarnoush/Helwing 2005
M. Azarnoush/B. Helwing, Recent Archaeological Research in Iran – Prehistoric to Iron Age. *Archäologische Mitteilungen aus Iran und Turan* 37, 2005, 189–246.
- Chlopin 1972
I. N. Chlopin, *Denkmäler der Bronzezeit im Tal des Flusses Sumbar*. *Iranica Antiqua* 10, 1972, 80–93.
- Chlopin 1986
I. N. Chlopin, *Jungbronzezeitliche Gräberfelder im Sumbar-Tal, Südwest Turkmenistan*. *Materialien zur Allgemeinen und Vergleichenden Archäologie* 35 (München 1986).
- Cleuziou 1977
S. Cleuziou, Les Pointes de Flèches «scythiques» au Proche et Moyen Orient. In: J. Deshayes (ed.), *Le plateau Iranien et l'Asie Centrale des Origines à la Conquête Islamique* (Paris 1977) 187–200.
- Cleuziou 1985
S. Cleuziou, L'Age du Fer à Tureng Tepe (Iran) et ses Relations avec l'Asie Centrale. In: *Actes du Colloque Franco-soviétique L'Archéologie de la Bactriane Ancienne, Dushanbe (U.R.S.S.), 27 Octobre – 3 Novembre 1982* (Paris 1985) 175–199.
- Cleuziou 1986
S. Cleuziou, Tureng Tepe and Burnished Grey Ware: A Question of “Frontier”? *Oriens Antiquus* 25, 1986, 221–256.
- Contenau/Ghirshman 1935
G. Contenau/R. Ghirshman, *Fouilles du Tépé-Giyan pres de Nehavend 1931 et 1932* (Paris 1935).
- Coon 1949
C. S. Coon, *Cave explorations in Iran 1949*. University Museum Monographs 5 (Philadelphia 1951).
- Crawford 1963
V. E. Crawford, *Besides the Kara Su*. *The Metropolitan Museum of Art Bulletin* 21, 1963, 263–273.
- De Bode 1844
C. L. de Bode, On a recently opened Tumulus in the Neighbourhood of Asterabad, forming part of ancient Hyrcania, and the Country of the Parthians. *Archaeologia* 30, 1844, 248–255.
- De Morgan 1896
J. de Morgan, La Steppe Turkoman et le Mazandéran. *Kargouch-Tépé. Mission Scientifique en Perse* 4.1, 1896, 127–145.
- Derin/Muscarella 2001
Z. Derin/O. W. Muscarella, Iron and Bronze Arrows. In: A. Çilingiroğlu/M. Salvini (ed.), *Ayanis I. Ten Years' Excavations at Rusahinili Eiduru-kai 1989–1998*. *Documenta Asiana* 6 (Rome 2001) 189–217.
- Deshayes 1963
J. Deshayes, *Rapport Préliminaire sur les deux Premières Campagnes de Fouille à Tureng Tépé*. *Syria* 40, 1963, 85–99.

¹³⁹ Masson/Sarianidi (1972, 157) wrote that “there is every reason to believe that the Misrian plain was settled and developed as a result of colonization from northern Iran”. If so, eastern Māzandarān was obviously not involved in this process. Concerning the beginning of the Ancient Dahestān culture, Kohl 1984, 202, proposed a date as high as the 15th century BC. This was rejected by most of the other authors dealing with this issue. Cleuziou 1986, 240–241, favoured a date within Iron Age II, e.g. at the beginning of the first millennium BC. At Yarim Tappe, Iron Age material also has been dated by C14 analysis to the 11th century BC; Chlopin 1986, 32, proposed a chronological setting from the 10th to 7th centuries BC.

¹⁴⁰ As Cleuziou (1986, 224; 239–240; 256 Fig. 5) demonstrated that Turang Tappe IVA undoubtedly belongs to the Ancient Dahestān culture.

¹⁴¹ Comparisons between Gohar Tappe and the Ancient Dahestān culture are limited both in their number and significance. Only a fragmentary brick red jar from Pit AGIV-51 can be compared with the settlement finds from Iron Age Turang Tappe.

¹⁴² Deshayes 1979, 30–34; Cleuziou 1986, 241.

- Deshayes 1965
J. Deshayes, Rapport Préliminaire sur les Troisième et Quatrième Campagnes de Fouille à Tureng Tépé. *Iranica Antiqua* 5, 1965, 6–92.
- Deshayes 1967
J. Deshayes, Céramiques Peintes de Tureng Tépé. *Iran* 5, 1967, 123–131.
- Deshayes 1968a
J. Deshayes, Tureng Tépé et la Période Hissar IIIC. *Ugaritica* 6, 1968, 140–163.
- Deshayes 1968b
J. Deshayes, Tureng Tepe und die Ebene von Gorgan zur Bronzezeit. *Archaeologia Viva* 1, 1968, 35–38.
- Deshayes 1972
J. Deshayes, Tureng Tépé et la Période Hissar III C. In: *The Memorial Volume of the Vth International Congress of Iranian Art and Archaeology. Tehran-Isfahan-Shiraz 11th–18th April 1968, Vol. 1 (Tehran 1972)* 34–38.
- Deshayes 1979
J. Deshayes, Les Niveaux de l'Age du Fer à Tureng Tépé. In: *Actes des VII. Internationalen Kongresses für Iranische Kunst und Archäologie, München 7.–10. September 1976. Archäologische Mitteilungen aus Iran, Ergänzungsband 6 (Berlin 1979)* 29–34.
- Dittmann 1990
R. Dittmann, Eisenzeit I und II in West- und Nordwestiran zeitgleich zur Karum-Zeit Anatoliens? *Archäologische Mitteilungen aus Iran* 23, 1990, 105–138.
- Dyson 1979
R. H. Dyson, Questions and Comments on “Amlash” Pottery. In: R. Ettinghausen/E. Yarshater (ed.), *Highlights of Persian Art. Persian Art Series 1 (Boulder 1979)* 3–17.
- Dyson/Howard 1989
R. H. Dyson/S. M. Howard (ed.), *Tappeh Hesār. Reports of the Restudy Project 1976 (Florence 1989)*.
- Egami et al. 1965
N. Egami/S. Fukai/S. Masuda, Dailaman I. The Excavations at Ghalekuti and Lasulkan 1960 (Tokyo 1965).
- Ehlers 1971
E. Ehlers, Klimageschichte und Siedlungsgang in vor- und frühgeschichtlicher Zeit in der Turkmenensteppe Nordpersiens. *Archäologische Mitteilungen aus Iran und Turan* 4, 1971, 7–19.
- Ehlers 1980
E. Ehlers, Iran. Grundzüge einer geographischen Landeskunde (Darmstadt 1980).
- Fahimi 2006
H. Fahimi, A Study of the Ceramic Assemblage from University of Hiroshima Soundings at Anjirab (Farsi with English summary). *Archaeological Reports* 4, 2006, 71–112.
- Fallahiyan 2004
Y. Fallahiyan, Tajali-ye farhang-e asr-e ahan dar gorgan-e tariki-ye Jamshidabad Gilan. *Archaeological Reports* 2, 2004, 217–237.
- Fazeli Nashli 2007
H. Fazeli Nashli, The Report of Function of Iranian Center for Archaeological Research 2006–2007 (Farsi) (Tehran 2007).
- Fukai/Ikeda 1971
S. Fukai/J. Ikeda, Dailaman IV. The Excavations at Ghalekuti II and I 1964 (Tokyo 1971).
- Gambaschidze et al. 2001
I. Gambaschidze/A. Hauptmann/R. Slotta/Ü. Yalçin (ed.), *Georgien. Schätze aus dem Land des Goldenen Vlies (Bochum 2001)*.
- Ghirshman 1976
R. Ghirshman, Terrasses sacrées de Bard-è Néchande et Masjid-e Solaiman. L'Iran du sud-ouest du VIII^e s. av. notre ère au Ve s. av. notre ère. Vol. 2. *Mémoires de la Délégation en Iran* 45 (Paris 1976).
- Gülçur 1995
S. Gülçur, Das bronzezeitliche Wrack von Uluburun bei Kaş. *Antike Welt* 26.6, 1995, 453–461.
- Haerincx 1988
E. Haerincx, The Iron Age in Guilan: proposal for a chronology. In: J. Curtis (ed.), *Bronzeworking Centres of Western Asia c. 1000–539 B.C. (London 1988)* 63–78.
- Häuber/Schütz 2004
C. Häuber/F. X. Schütz, Einführung in Archäologische Informationssysteme (AIS) – Ein Methodenspektrum für Schule, Studium und Beruf mit Beispielen auf CD (Mainz Rhein 2004).
- Hakemi 2006
A. Hakemi, Archaeological Report of Eight Seasons of Survey and Excavation at Shahdād (Lūt Plain) (Teheran 2006).
- Hellmuth 2008
A. Hellmuth, The Chronological Setting of the so-called Cimmerian and Early Scythian Material from Anatolia. *Ancient Near Eastern Studies* 45, 2008, 102–122.
- Helwing 2004
B. Helwing, SIALKDAT – A documentation system for successful information management developed for the Sialk Reconsideration Project. In: S. Malek Shahmirzadi (ed.), *The Potters of Sialk, Report of the Sialk Reconsideration Project 3 (Tehran 2004)* 33–44.
- Helwing 2005
B. Helwing, Tappeh Sialk South Mound: Operation 3. In: S. Malek Shahmirzadi (ed.), *The Fishermen of Sialk. Report of the Sialk Reconsideration Project 4 (Tehran 2005)* 27–66.
- Kambakhsh Fard 1998
S. O. Kambakhsh Fard, Parthian Pithos-Burials at Germi (Azarbaijan). *Iranian Journal of Archaeology and History Supplement* 1 (Tehran 1998).
- Kambakhsh Fard 2001
S. Kambakhsh Fard, A Glance at Tehran 3000 Years ago (Tehran 2001).
- Kaniuth 2009
K. Kaniuth, Sang-e Čaqmāq. Reallexikon der Assyriologie und Vorderasiatischen Archäologie 11.7–8 (Leipzig 2009) 391–392.
- Khalatbari 2004a
M. Khalatbari, Archaeological Investigations in Talesh, Gilan 1. Excavations at Toul-e Gilan (Tehran 2004).
- Khalatbari 2004b
M. R. Khalatbari, Kāvoushaje bāstān shenāsi dar mavātehāje bāstāni Tālesh. *Mariān-Tandāvin, Gilān* 2004 (Tehran 2004).
- Khanzadian 1995
E. Khanzadian, Metsamor 2. La Nécropole. Vol. 1. *Les Tombes du Bronze Moyen et Recent (Neuchâtel-Paris 1995)*.

- Khlopin 1981
I. N. Khlopin, The Early Bronze Age Cemetery of Parkhai II: The first two Seasons of Excavations: 1977–1978. In: Ph. Kohl (ed.), The Bronze Age Civilization of Central Asia. Recent Soviet Discoveries (New York 1981) 3–34.
- Khlopin 2002
I. N. Khlopin, Bronze Age of South-West Turkmenistan (Saint-Petersburg 2002).
- Kohl 1984
Central Asia. Palaeolithic Beginnings to the Iron Age. Recherche sur les Civilisations 14 (Paris 1984).
- Kohl/Heskel 1980
P. Kohl/D. Heskel, Archaeological Reconnaissance in the Darreh Gaz Plain: A short Report. Iran 18, 1980, 160–172.
- Lippert 1979
A. Lippert, Die Österreichischen Ausgrabungen am Kordlar-Tepe in Persisch-Westasien (1971–1978). Archäologische Mitteilungen aus Iran 12, 1979, 103–137.
- Löw 1998
U. Löw, Figürlich verzierte Metallgefäße aus Nord- und Nordwestiran. Altertumskunde des Vorderen Orients 6 (Münster 1998).
- Luschey 1983
H. Luschey, Urtümliche dörfliche Holzbauten an der Küste des Kaspischen Meeres. Archäologische Mitteilungen aus Iran 16, 1983, 383–393.
- Mahfrozzi 2007
A. Mahfrozzi, Bastan šenasi šarq-e Mazandaran ba takiyeh bar kavuš-haye Gohar Tappeh. Archaeological Reports 7, On the Occasion of the 9th Annual Symposium on Iranian Archaeology. Vol. 2 (Tehran 2007) 347–368.
- Masson/Sarianidi 1972
V. M. Masson/V. I. Sarianidi, Central Asia. Turkmenia before the Achaemenids (London 1972).
- Masson 1988
V. M. Masson Altyn-Depe. University Museum Monograph 55 (Philadelphia 1988).
- Masuda 1974
S. Masuda, Excavations at Tappe Sang-e Čaxmaq. In: F. Bagherzadeh (ed.), Proceedings of the IInd Annual Symposium on Archaeological Research in Iran 1973 (Tehran 1974) 23–33.
- Masuda 1976
S. Masuda, Report of the Archaeological Investigations at Šahrud, 1975. In: F. Bagherzadeh (ed.), Proceedings of the IVth Annual Symposium on Archaeological Research in Iran, 1975 (Tehran 1974) 63–70.
- Miron/Orthmann 1995
A. Miron/W. Orthmann (ed.), Unterwegs zum Goldenen Vlies. Archäologische Funde aus Georgien (München 1995).
- Moorey 1994
P. R. S. Moorey, Ancient Mesopotamian Materials and Industries. The Archaeological Evidence (Oxford 1994).
- Morier 1985
J. J. Morier, Reisen durch Persien in den Jahren 1808 bis 1816 (Berlin 1985).
- Mousavi 2001
A. Mousavi, La Région de Téhéran à l'Aube de l'Age du Fer. Reflexions et Commentaires sur les Nécropoles du I^{er} Millénaire av. J.-C. Iranica Antiqua 36, 2001, 151–202.
- Mousavi 2005
A. Mousavi, Comments on the Early Iron Age in Iran. Iranica Antiqua 40, 2005, 87–99.
- Mousavi 2008
A. Mousavi, Late Bronze Age in North-Eastern Iran: An Alternative Approach to Persisting Problems. Iran 46, 2008, 105–120.
- Muscarella 1974
O. W. Muscarella, The Iron Age at Dinkha Tepe, Iran. The Metropolitan Museum Journal 9, 1974, 35–90.
- Negahban 1972
E. O. Negahban, Pottery Figurines of Marlik. In: The Memorial Volume of the VIth International Congress of Iranian Art and Archaeology. Tehran-Isfahan-Shiraz 11th–18th April 1968, Vol. 1 (Tehran 1972) 142–152.
- Negahban 1964
E. O. Negahban, A Preliminary Report on Marlik Excavation. Gohar Rud Expedition, Rudbar 1961–1962 (Tehran 1964).
- Negahban 1996
E. O. Negahban, Marlik. The Complete Excavation Report (Philadelphia 1996).
- Nokandeh et al. 2006
J. Nokandeh/H. Omrami Rakavandi/G. Abbasi, Preliminary Report of Discovery of the Bazgir Hoard in Gorgan Plain, 2001. Archaeological Reports 4, 2006, 113–129.
- Ohtsu et al. 2004
T. Ohtsu/G. Nokandeh/K. Yamauchi (eds.), Preliminary Report of the Iran Japan Joint Archaeological Expedition to Gilan, Second Season, 2002 (Tehran, Tokyo 2004).
- Olearius 1959
A. Olearius, Moskowitzsche und Persische Reise 1633–1639 (Berlin 1959).
- Orsaria 1995
F. Orsaria, Shah Tepe: a New Approach to an Old Excavation. Rivisti degli Studi Orientali 69.3–4, 1995, 481–495.
- Parzinger 2006
H. Parzinger, Die Frühen Völker Eurasiens. Vom Neolithikum bis zum Frühmittelalter (München 2006).
- Piller 2004
C. K. Piller, Zur Mittelbronzezeit im nördlichen Zentraliran – Die Zentraliranische Graue Ware (Central Grey Ware) als mögliche Verbindung zwischen Eastern und Western Grey Ware. Archäologische Mitteilungen aus Iran und Turan 35–36, 2003–2004, 143–173.
- Piller 2008
C. K. Piller, Untersuchungen zur relativen Chronologie der Nekropole von Marlik, Dissertation LMU München, Fakultät für Kulturwissenschaften, 2007, <http://edoc.ub.uni-muenchen.de/8907/> (München 2008).
- Rezvani 1999
H. Rezvani, Settlement Patterns and Cultures in Semnan Province, Central Plateau, Iran. In: A. Alizadeh/Y. Majidzadeh/S. Malek Shamirzadi (ed.), The Iranian World. Essays on Iranian Art and Archaeology presented to Ezat O. Negahban (Tehran 1999) 7–19.
- Rezvani/Roustaei 2007
H. Rezvani/K. Roustaei, A Preliminary Report on two Seasons of Excavations at Kul Tarik Cemetery, Kurdestan, Iran. Iranica Antiqua 42, 2007, 138–184.

- Rostovtzeff 1920
M. Rostovtzeff, The Sumerian Treasure of Astrabad. The Journal of Egyptian Archaeology 6.1, 1920, 4–27.
- Shahmirzadi/Nokandeh
S. M. Shahmirzadi/G. Nokandeh, Agh Tepe (Gorgan 2001).
- Soltysiak/Mahfroozi 2008
A. Soltysiak/A. Mahfroozi, Gohar Tepe and Goldar Tepe (Iran), seasons 2006–2007. Bioarchaeology of the Near East 2, 2008, 71–77.
- Starr 1937
R. F. S. Starr, Nuzi II (Cambridge 1937).
- Stöllner et al. 2004
Th. Stöllner/R. Slotta/A. Vatandoust (ed.), Persiens Antike Pracht. Bergbau – Handwerk – Archäologie (Bochum 2004).
- Stronach 1972
D. Stronach, Yarim Tepe. In: Organizing Committee of the sixth International Congress of Iranian Art and Archaeology (ed.), Excavations in Iran. The British Contribution (Oxford 1972) 21–23.
- Vanden Berge 1972
L. Vanden Berghe, Recherches Archéologiques dans le Luristan. Cinquième Campagne: 1969, Prospection dans le Pusht-i Kuh Central, Rapport Préliminaire. Iranica Antiqua, 9, 1972, 1–48.
- Whitcomb 1985
D. S. Whitcomb, Before the Roses and Nightingales. Excavations at Qasr-i Abu Nasr, Old Shiraz (New York 1985).
- Vámbéry 1867
H. Vámbéry, Meine Wanderungen und Erlebnisse in Persien (Pest 1867).
- Venco Ricciardi 1980
R. Venco Ricciardi, Archaeological Survey in the Upper Atrek Valley (Khorassan, Iran). Mesopotamia 25, 1980, 51–72.
- Voigt/Dyson 1992
M. Voigt/R. H. Dyson, The Chronology of Iran, ca. 8000–2000 B.C. In: R. W. Ehrich (ed.), Chronologies in Old World Archaeology, Third Edition (Chicago, London 1992) 122–178.
- Vossen 2008
G. Vossen, Datenmodelle, Datenbanksprachen und Datenbankmanagementsysteme (München 2008).
- Wulsin 1932
F. Wulsin, Excavations at Tureng Tepe near Astarabad. Supplement to the Bulletin of the American Institute for Persian Art and Archaeology 2.1 (Philadelphia 1932) 1–12.
- Wulsin 1938
F. Wulsin, The Early Culture of Astarabad (Turang Tepe). In: A. U. Pope (ed.), A Survey of Persian Art I (London, New York 1938) 163–167.

Christian Konrad Piller
Institut für Vorderasiatische Archäologie
Ludwig-Maximilians-Universität München
Geschwister-Scholl-Platz 1
80539 München
E-Mail: christian.piller@vaa.fak12.uni-muenchen.de

Ali Mahfroozi
Iranian Center for Archaeological Research
Baharestan Sq.
11416 Tehran, Iran
E-Mail: amahfroozi@yahoo.com

Birgül Ögüt
Institut für Vorderasiatische Archäologie
Ludwig-Maximilians-Universität München
Geschwister-Scholl-Platz 1
80539 München
E-Mail: b.ogut@gmx.de

Natascha Bagherpour
Rössdorfer Straße 72
64287 Darmstadt
E-Mail: natascha_bk@arcor.de

Thomas Neumann
Lindwurmstraße 155
80337 München
E-Mail: tuo84@yahoo.com

Summary

Gohar Tappe in the coastal plain of Māzandarān is one of the largest archaeological sites in northern Iran. Investigations by the Cultural Heritage Organization of Māzandarān started in 2003. In 2009, the first joint Iranian-German excavations were carried out in cooperation with the Institute for Near Eastern Archaeology at the Ludwig-Maximilians-University in Munich. Some stray finds of monochrome burnished and painted Chalcolithic wares indicate that Gohar Tappe was first settled around the middle of the fourth millennium BC. The third millennium saw the emergence of a large settlement which obviously played a major role in the Early Bronze Age trade network between Central Asia and the Iranian Highlands. In later times,

large parts of the mound were extensively used as a burial ground. A number of excavated burials from the 2009 season provide an opportunity to gain a better understanding of the end of the Eastern Grey Ware and the following Bronze-Iron Age transition in the region. During the Iron Age, parts of the mound were used for the erection of a small fortification. The site was finally abandoned during the 8th or 7th century BC.

Zusammenfassung

Gohar Tappe in der Küstenebene von Māzandarān ist einer der größten archäologischen Fundorte in Nordiran. Nach der Entdeckung des Ortes fanden seit 2003 zu-

nächst iranische Grabungen der Cultural Heritage Organization of Māzandarān statt, die seit Frühling 2009 als Gemeinschaftsprojekt mit dem Institut für Vorderasiatische Archäologie der Ludwig-Maximilians-Universität München durchgeführt werden. Funde von polierter grauer und bemalter chalkolithischer Keramik legen nahe, dass Gohar Tappe ab dem vierten Jahrtausend v. Chr. besiedelt war. Im dritten Jahrtausend kam es zur Herausbildung eines größeren Ortes, der offensichtlich eine wichtige Rolle an dieser Schnittstelle zwischen den Kulturen

Zentralasiens und des Iranischen Hochlandes spielte. In den späteren Phasen wurde der Hügel hauptsächlich für die Anlage von Bestattungen genutzt. Einige der 2009 freigelegten Gräber bieten die Möglichkeit, zusätzliche Kenntnisse über das Ende der Eastern Grey Ware und den folgenden Übergang von der Bronze- zur Eisenzeit in der Region zu erhalten. Während der Eisenzeit wurde ein kleinerer Bereich des Hügels für die Anlage einer Befestigung genutzt. Die spätesten Funde vor Ort stammen aus dem 8.–7. Jh. v. Chr.

